California State Journal of Medicine

ISSUED MONTHLY: OWNED AND PUBLISHED BY THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

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ENTERED AT SAN FRANCISCO, CAL. AS SECOND-CLASS MATTER

(SEE PAGE XI)

California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. XIV DECEMBER, 1916 No. 12

At noon on November 27th, Dr. Philip Mills Jones, Editor of the "California State Journal of Medicine" and Secretary of the Medical Society of the State of California, died of pneumonia at his home in San Francisco.

His unique position as a leader of the organized profession of the State of California will make his loss well-nigh irreparable, and his death will be a great shock to the innumerable physicians throughout the State whom he has befriended both in his individual and his official capacity.

Owing to the lateness of the date, an extended notice of Dr. Jones' life and activities must be postponed until a later issue.

EDITORIAL NOTES

IMPORTANT NOTICE

The Committee on Scientific Program wish to announce that so many applications for places on the program have been received that no further papers can be considered unless a vacancy hereafter occurs. Those whose papers have already been accepted are again reminded that there must be in the hands of the Committee, not later than January 1st, 1917, the full title of their paper with abstract. Any one failing to comply with these regulations will be automatically dropped from the program.

MALPRACTISE INDEMNITY FUND.

Are you one of the 2220 members of the Society who have intended to contribute to the fund, or are going to do so, or are thinking about it but have not done so? If you are one of this class, you had better send your check for $15.00 and your note for like amount, payable one year after date, immediately.

INDEMNITY FUND.

The correspondence which has developed since the announcement of the creation of the Malpractise Indemnity Fund has been very voluminous. Practically without exception, every one who has written to the secretary has approved the plan.

One man writes as follows: "Happy is the man that has never been sued or threatened with a suit, but the fateful day may come to any physician, and we had better all stand together to take care of ourselves when we have such a good chance as now is offered."

The writer of the letter is perfectly correct. If the physicians of this State do not cooperate amongst themselves for their own protection, they will very soon be in exceedingly bad case. Suits for damages for alleged malpractise are steadily increasing and, as was recorded in last month's JOURNAL, ocacsionally one goes against the physician. There should be at least 1000 members of the State Society with sufficient intelligence and business sense to take advantage of a plan whereby they absolutely protect themselves at a small cost and without any overhead charges against their investment. There are no dividends to pay; there is nothing to pay out of the fund except the actual cost of settlements. Doubtless there are hundreds of doctors, members of this society, who would cheerfully be inveigled into buying some wildcat oil stock, but who will deliberate for days or weeks before investing the small sum of $15.00 for their own protection.

AGAIN THE INDEMNITY FUND.

A member who transmits his check and note as a contribution to this fund, raises the question as to whether there would be any objection to a member also carrying insurance, and whether it would be of any value. There certainly can be no objection. It would be of value only to this extent, that it would conserve the fund; because, firstly, if such a member was sued, the insurance company would have to bear the expenses of the suit, though our attorneys might cooperate in the actual trial if it were necessary; secondly, if a judgment went against the member, the insurance company would have to pay up to the amount of the policy, thus conserving the fund of our own members in our own hands.

ABOUT INCOMES.

One gentleman and member of our society, who sent in a postcard with the information as nearly as he could give it, also sent a letter which is so sound and reasonable that we are almost tempted to publish his name. However, as his permission has not been secured, the name is omitted, but the letter follows:

"Oct. 28, 1916.

"Dear Doctor:

"In answer to your favor with postal card enclosed to fill out, would state that I am in a farming district where it is somewhat difficult to

come at one's income and a man working for wages gets very little indeed.

"Nearly every farmer has an automobile, but if the truth was known very few of them are paid for, so that the doctor has to wait a long time for his money at times.

"I have my office built in one corner of my yard so have no direct rent to pay; as to practise, it is certainly general and includes everything, and I must know everything which can possibly accrue.

"I drive a Ford car and buy a new one every year, turning old one in for close to two hundred dollars less than the new car costs.

"Between gas, oil, and repairs, my car costs me close to fifty dollars per month, but naturally I live in it.

"It is a hard scratch to make ends meet and keep bills paid up, and we are never able to take a vacation and feel that we are able to afford it.

"I seem to be rather favored, if anything, in the way of a location and seem to be doing about as well as the others around me.

"What I feel worse about is the lack of professional courtesy or the absolute dishonesty among the men of the profession with whom I come in contact.

"One can hardly have a consultation nowadays without losing the patient if that patient happens to be a desirable one and the other fellow can work the game.

"And it is not the irregulars entirely either, nor does the fact of both being members of the county medical society tend to protect you.

"It is a Utopian dream, of course, to expect perfection, but if the members of the profession would only practise decent honesty with their patients and other members there would be no need of a millennium, for that would indeed be Utopia sufficient for most of us.

"I believe that were the profession honest and sincere, there would be sufficient practise for everybody and more money.

"Fraternally yours."

SOCIAL INSURANCE COMMISSION.

The circular letter and postcard asking for information as to physicians' incomes, which were sent out the latter part of October, have produced a very interesting group of replies. A gratifyingly large number of physicians in the State, both members and non-members, could see the reason for this and have sent in as nearly accurate figures as they could. A very large number have also written letters explaining the circumstances and surroundings in which they live and practise. It is rather an unpleasant task to say, however, that some presumably dignified and gentlemanly members of the medical profession have seen fit to write the most insulting messages on the postcards, in one or two cases descending to a degree of vulgarity and filth which necessitated sending the postcard in a sealed envelope. It is difficult to understand the type of mind that can descend to a thing of this sort, or fail to realize or understand the import of a movement directly intended for the benefit of the whole profession.

MERRY CHRISTMAS!

Perchance and peradventure this Merry Christmas greeting comes a little ahead of time, but nevertheless may it be taken and held to the 25th of the month before due acceptance.

These are strange days and strange times. Conditions are varying and changing almost with each passing day. Let us, however, in saying goodbye to the year, look forward to the next one with courage, all thankful that we are alive, and still more thankful to a divine providence that we live in California. Again, Merry Christmas!

NEEDED REFORM OF COUNTY SOCIETIES.

At the present time the practise of medicine is undergoing rapid changes of such a nature and degree as to rouse the profession to serious contemplation of the problems at issue and cause a feeling of unrest and uncertainty in regard to the future. Such a critical juncture in the professional situation may be viewed with equanimity and perhaps a brightened hope by those who labor under the protecting wing of an institution or a limited organization. Unfortunately, however, the great mass of independent practitioners must feel the force of this insidiously growing current, fearing that eventually their individual efforts to secure justice to themselves must fail them.

There has never been in the history of the State Society a more imperative need for the effective organization and consolidation of the mass of the profession than at the present time. But the State Society labors under a serious disadvantage insofar as its strength is the collective strength of its component county societies. These as the ultimate units must develop greater force and effectiveness in order to aid the State organization, if it is to secure a just regard for the reasonable demands of its members whether before the general public or its representatives.

The time is therefore opportune for enlarging the activities of the county organization. While heretofore these activities have been devoted largely to academic purposes, as long as they are limited to this field they do not afford that opportunity for closer cooperation and consciousness of purpose that is needed by the medical profession.

To remedy this deficiency the policy of a county society must extend beyond the scientific program and the library, however attractive. The county society should encourage a spirit of free association among its members. It should formulate plans tending to increase sociability and provide facilities having this end in view. Societies have been too indifferent in the matter of securing new and desirable members and they should make every effort to increase membership. Above all they need leaders of clear insight and in close sympathy with the body of the profession and the movements that affect it, men of marked executive ability whose utterances and unstinted, disinterest-

ed activities command attention, respect and confidence, while they carry conviction and actuate others.

SAD BUT TRUE.

Many times during the last eight years has this JOURNAL commented on the fact that the careless utterances of physicians very frequently resulted in damage suits. Occasionally, too, we have referred to the fact that a physician, without knowing all the circumstances and conditions of a case, will express an emphatic opinion. Somehow or other physicians, though their whole lives are spent in contact with patients, cannot seem to realize that nothing is so unreliable as a patient's statement of what some other doctor did. There is nothing more dangerous that one can readily think of than accepting the opinion of a patient or a layman as to the condition of the patient or what other doctors have done in the way of previous treatment or operations. In direct connection with this is the following matter from a member of the Society who has recently been sued:

"The attorney who is representing the plaintiffs has remarked on numerous occasions that they had an expert who was going to rip me to shreds. I have recently found out who this man is. He is Dr. W. S. P. I noticed in the American Medical Directory that he is a member of the Association and, of course, of the State Society. While I would not expect a medical man to have his judgment biased by the fact that he is a member of the same association that I am and therefore should not testify against me, still I feel that before beginning his ripping process he should have had a scientific rather than a lay history of the circumstances before he so readily formed his judgment. This he has not done.

"This brings to my mind a point which I believe would make a good editorial for the JOURNAL, and that is that we are very apt to limit our ethical conduct by geographical boundaries. How often it is that we carelessly and freely criticize to a patient the treatment that has been administered by some doctor in another locality which we would not think of doing if that doctor were in our own town. This point has presented itself to me on a number of occasions and I feel that our ethics should be broad enough to cover a larger area than our own immediate vicinity. If this Dr. P. were practising in my city, he undoubtedly would have communicated with me for details of this case before taking so antagonistic an attitude.

MEDICINE AND SOCIOLOGY.

A very kindly correspondent writes and, commenting upon the statement made in a recent issue that "few medical men are students of sociology," asks why the JOURNAL does not publish more comment on this subject. There has hardly been an issue of the JOURNAL for five years that has not contained some editorial note referring to one or more points where medicine and sociology come in close touch. It may not be always apparent, but the fact is there. For instance, a careful reader of this issue of the JOURNAL will find quite a few things referring to the sociologic changes which are going on in the medical profession.

INDUSTRIAL ACCIDENT INSURANCE.

One day a letter is received from some one who roundly condemns the whole principle of industrial accident insurance, says that it is all wrong, and cries aloud that it is an outrage to the medical profession. The next day comes a letter something like this, from a member of the Society in one of the smaller towns in the State:

"Now regarding accident insurance, I personally like it. I wish there was more of it. I get a fair fee now, always, for accident work, while heretofore I was lucky to receive compensation for my services at all. I am therefore in favor of the contemplated sickness insurance. One can conduct himself as a gentleman always, and really professional ethics, boiled down, means merely being a gentleman at all times. Sickness insurance is going to be a good thing and will have a tendency to do away with lodge practise evils."

This is somewhat different from the views expressed in the last issue of the JOURNAL by several gentlemen who discussed this question. It is a large and open question and there is plenty of room for a diversity of opinion.

THE EMANUEL MOVEMENT AND THE LAW.

A circular has been sent out by the Emanuel Institute of Health, Incorporated, Reverend Thomas Parker Boyd, Dean, which refers to the fact that the Reverend Thomas Parker Boyd, head of the Emanuel Institute of Health, was arrested for violating the law regulating the practise of medicine in this State. He certainly was. He certainly should have been. From the personal experience of one well known to the writer, one of the reverend gentlemen connected with the Emanuel Movement seemed to devote most of his time to holding the hand of his fair patient, and invariably insisted upon $2.50 for each such holding. The Reverend Thomas Parker Boyd, arrested for breaking the law, in his circular (or the circular emanating from the Emanuel Institute of Health, Incorporated) seems to be highly indignant, not to say belligerent. The circular announces in stentorian tones that this case is to be made a test case, is to be fought in the courts with all the strength, religious and financial, of the Emanuel Institute of Health, Incorporated, and in modest terms it says: "It may need to go to the Supreme Court of the United States, which will involve much time and expense." This probably means that the rate for holding ladies' hands will have to be raised.

STUPIDITY.

As a rule, anonymous communications received in this office are promptly dropped in the waste-basket and no attention is paid to them. However, we will make this a special case and comment on the note which a member of the Society sent in, written on the back of the circular letter which accompanied the postcard asking for information in regard to incomes.

He says: "This, it is apparent to me, is an excellent method by which the Federal authorities may ascertain the amount of the physician's income, thereby giving them a fine chance to collect an income tax from us, and I believe physicians are poor enough already."

In the first place, it was definitely announced on the authority of the Medical Society of the State of California, that the information sent in would be confidential.

In the second place, there is nothing on the postcard by which the identity of the one who fills it out can be determined.

In the third place, if a physician's income is such as to be included under the law of the income tax and he conceals that fact, he confesses himself to be a deliberate thief.

The editor sincerely trusts that the writer of this anonymous letter may read these words and recognize himself as either a fool, a liar, or a thief.

INVESTIGATION OF TRAINING SCHOOLS.

Within the last two or three years, a considerable amount of attention has been directed toward the investigation of hospitals and the training of nurses. In this State, the State Board of Health, through its Nurses' Bureau, has undertaken to do a certain amount of work. As a result of this activity, the following is part of some resolutions passed by the Humboldt County Medical Society, and gives food for thought:

"Your attention is called to the Curriculum and Requirements for Accredited Training Schools of Nursing recently promulgated by the Nurses' Bureau of the State Board of Health.

"Inasmuch as this Board has laid out an unreasonable program to be followed by hospital training schools in order to be accredited, and inasmuch also as Senate Bill No. 526 does not give this Board authority to make these requirements, it is deemed advisable to use every means possible to control this assumed authority and define by law a sane and reasonable course of studies for nurses, that will allow the hospitals away from the large centers to continue their training schools.

"In order to do this, and prevent further raising of standards already unreasonable, we believe the fairest way will be for the Legislature to establish the Requirements and Curriculum which training schools shall meet, instead of delegating this power to the Nurses' Bureau of the State Board of Health."

ORIGINAL ARTICLES

PRINCIPLES AND PROBLEMS OF INDUSTRIAL ACCIDENT WORK.*

By MORTON R. GIBBONS, M. D., San Francisco.

I am asked to speak on the principles and problems of Industrial Accident Work. This subject I know should be treated from the doctor's side. However, the doctor's side and the Commission's side are so dovetailed as to be almost indistinguishable.

It is the duty of the Industrial Accident Commission to administer a law which at once requires consideration of medical subjects, legal subjects, moral subjects and general humanitarism.

The text of the law says: "Neither Commission, nor referee appointed thereby, shall be governed by the technical rules of evidence." I suspect that many doctors who have come in contact with the law have gathered the idea that the Commission applies this privilege to medical subjects as well as to legal subjects.

The Commission had at the outset a difficult duty to perform. There were few Commissions in this country when our law became effective. The laws in existence had less scope than has the California law. No Commission had gone far; all were pioneering. The foreign laws help little because of differences of the basic principles of our Government. Our Commission had to make all its rules of procedure and establish its own precedents.

Now a parallel condition existed in the medical experience in the United States. Very few men had ever had great responsibility to meet in the question of trauma and its results The books, when they mention trauma at all, *"mentioned"* it only. They did not give responsible information.

The California Commission gathered a group of medical men to whom the task of advising it in these subjects has fallen. These men, by their studies of cases, and needs, and by their general familiarity with the work, have become most valuable. They themselves would be surprised to learn the change in their point of view in the last two and one-half years, and surprised to realize their greater facility in handling the ordinary run of cases. However, just because the medical experts are scientific conscientious men, the Commission is sometimes left in a dilemma. Medical and surgical information as you know is not complete. Some things cannot be stated positively by men who regard their reputations. This is not always true of all medical men. The Commission then sometimes finds a conscientious equivocal statement confronted by a comparatively irresponsible positive statement on a point on which no one has the knowledge to say much. This then is a problem of the Commission.

Of course, the Commission must listen to interested parties. I state frankly that some doctors are not above serving a cause which is not scien-

* Read before the San Francisco County Medical Society, August 15, 1916.

tific. Some are willing to make positive statements without positive knowledge and some seem even to be hypnotized by an opportunity to talk, and forget that they are responsible for their words.

Another grave problem is that of securing proper medical and surgical treatment of industrial injuries. The medical advisors of the Commission know all about this matter. Their work lies largely in the review of errors of other doctors. Rightly or wrongly, the California Commission feels responsible for surgical results. It feels responsibility to the people of California. It feels that it is in duty bound to scrutinize results and to influence the seeking of surgical service which *can* offer reasonable scientific treatment. When a crushing fracture of the oscalcis passes unnoticed; when an injured knee joint is incised for alleged infection four days after injury; when a fracture of a femur escapes detection; when a fracture of a vertebra is treated by massage, and so on, through a long list, the Commission feels a direct responsibility for the poor results obtained. The Commission therefore stands for the selection of qualified surgeons and physicians as the law provides. I believe I speak for the medical advisors of the Industrial Accident Commission when I say that the medical advisors stand for the same thing.

The two foregoing subjects are probably the more important of the medical problems. We have with us, however, constantly recurring difficulties in a group of cases in which it seems probable that no sharp line of demarcation can ever be drawn. Each case must present a problem all its own. *Hernia, sacro-iliac strains, traumatic neurasthenia, tuberculosis—pre-existing and lighted up —or tuberculosis secondary to injury, osteo arthritis, and old age maintain a never-ending turmoil in the medical affairs of the Commission.*

The clear-cut cases are not difficult to handle. The border-line cases, those in which there may be as many opinions as there are experts, cause trouble. Other difficulties arise from differences of opinion only. They are just as serious cases to decide as any others. Then again there are the cases the conditions of which are not met by any existing information.

I think it would not be out of place to read for your consideration a few examples of the difficulties which confront the Commission and its advisors.

Let me state that the Commission generally takes the medical information coming to it, accepting on its own responsibility that which is plain and clear cut, and in which there is no controversy, while that showing differences of opinion is referred to the medical advisors.

Please remember, in considering these cases which I will quote, that the Commission wants conscientiously to do the right thing. No one not entitled to compensation should receive it. He who is entitled to compensation should not be deprived.

Case 1. F. C. The following is a case of claim for compensation for death of an injured workman. On October 30, 1915, the deceased suffered a fracture of the pelvis. Injury was treated with plaster paris cast. November 14, two weeks after the injury, injured suddenly died. Autopsy revealed perforation of the heart and pericardium filled with blood. The relatives of the deceased made claim for compensation because of industrial accident. The question arises here—as to the cause of death, or—rather, the cause of the rupture of the heart and its connection with the injury. Abstract of the examination of the heart shows nothing abnormal. No emboli were discovered in pulmonary system. Microscopical examination of the heart showed fraying of fat and muscles at the edge of perforation. Tissue infiltrated with blood. Diagnosis—spontaneous rupture of the heart.

Case 2. H. A. B.—I. A. C. No. 2561. This individual developed actino mycosis in the jaw while working in a grain mill. Actino mycosis has been held to be an industrial injury by certain authorities. Knocker, British authority on industrial accidents, says—"actino mycosis is a disease due to fungus in certain grasses, sometime affecting men." That has been the prevailing opinion. The insurance company interested in the case has made representation to the Industrial Accident Commission quoting authorities which indicate that late investigations will prove that this cannot be a disease coming from grain, or in any way involved in the handling of grain. The above indicates the possibility that the subject of actino mycosis is in a transition stage. The decision of the Commission, if it assumes that attitude, will probably be the first decision denying that actino mycosis is due to industrial injury.

Case 3. P. K. This individual, a man of about 63 years, fell a distance of ten or twelve feet and striking on the temple, and the margins of the orbit of one side of the head. He sustained much contusion about the orbit and eyelids.

Case 4. The last case to which I will invite your attention, is that of (J. B. S. No. 2441). A young man with the following history: On December 27, 1915, in stepping from his automobile to the sidewalk struck the ankle against the curbing. Limped into the store and rested three-quarters of an hour. Went to a druggist and was given a lotion to rub on ankle. Remained home until January 6, 1916, applying liniments, etc. On this date consulted Dr. ————. January 7, 1916, X-ray—11 days—no fracture. January 25 it did show a separation of the periosteum for about three inches at its lower extremity of the fibula. X-ray Feb. 4, 1916—39 days—showed some rarefaction of bone and small advance over first X-ray. March 5, 1916 —76 days—three-quarters of an inch more of the fibula involved.

On January 25, Dr. ———— made a small incision in the femur, expecting to find pus. No pus, only a sero-purulent material. March 8th, section of growth removed, showed osteo sarcoma. March 13th, amputation at middle of thigh; no early history of any ankle injury or trouble. Several opinions are on file in this case, and they are about evenly divided as to whether or not trauma caused this osteo sarcoma. It is of utmost importance to decide this point, and it hinges on whether or not a sarcoma may be caused in a bone from a bruise, without fracture, and be so far developed in ten days as to show changes on X-ray plate.

While some authorities tabulate many cases in which sarcoma in a bone has been known to be present in ten days after trauma—there is no case that I can find in which there has been any clinical observation to show that osteo sarcoma did not exist before the injury. We are still trying to decide this point.

STREPTOCOCCIC INFECTIONS OF THE SKIN.*

By ERNEST DWIGHT CHIPMAN, M. D., San Francisco.

Just as in surgical practice the streptococcus is seen to infiltrate subcutaneous tissues and spread rapidly while the activities of the staphylococcus are held in check by defensive abscess walls, so in dermatologic practice the streptococcus, invading the epidermis, shows a marked tendency to rapid dissemination as compared with the straphylococcus which is more strictly confined in its activities to the pilo-sebaceous orifices.

Beside this rapid peripheral extension the streptococcus shows in surface lesions other definite characteristics. For example, the exudate is serous rather than purulent. The lesions resulting from streptococcic infections resemble those caused by burning. The fibrinous exudate which becomes apparent when the discharge diminishes is also quite distinctive. It is thin, clear and whitish or of a light, rosy hue. The streptococcus often, but by no means always, evinces a selective preference for certain sites such as the folds of the skin.

While streptococcic lesions have these points in common, they may vary in appearance, as do lesions from any cause, according to the situation involved, an infection of the palm finding more resistant tissue to contend with and less heat and moisture to favor it than one in the axillary fold.

The type of streptococcic dermatoses is impetigo contagiosa. Probably any of us would say off hand that it is the one of most frequent occurrence. Certainly it is the one most often diagnosed. There are, however, so many commonplace lesions of streptococcic origin which pass unrecognized that a review of some of them will be worth while.

The behavior of streptococcic infections in general is well illustrated in impetigo contagiosa. The striking feature in any case is the fact that all the lesions are crusted. Of course a crust is a consecutive lesion. What of its predecessor? What is the primary lesion and why do we so seldom see it?

First of all, because of the rapid evolution. Impetigo is well named for the word comes from the Latin *impetere* and the lesion is indeed impetuous in its onset. The first lesion of an impetigo is a minute vesicle which contains a clear, serous liquid. The corneous envelope is fragile and ruptures spontaneously or on the slightest scratching or other trauma. An abundant effusion is at once in evidence and this quickly coagulates forming the well known yellowish crust. Beneath this crust the process continues, the surrounding corneous layer being elevated about the circumference, and this in turn is transformed into a crust which doubles the size of the original crust. In the ordinary impetigo contagiosa there is no tendency toward localization in the folds.

ARTIFICIAL FOLLICULITIS COMPLICATING IMPETIGO.

Occasionally one will see between the crusted lesions of true impetigo small, greenish yellow pustules. These are not the true primary lesions of impetigo but pustules situated about hair follicles —the impetigo of Bockhart. The problem as to why a pure staphylococcus infection should complicate a pure streptococcus infection has long puzzled dermatologists.

Sabourand explains it somewhat in this way. In lesions caused by the staphylococcus one only finds the staphylococcus; it exists in a pure state as in the furuncle. Even when the staphylococcus is engrafted upon a lesion which it has not caused, it most often supplants the causal organism, disfiguring the primary lesion which it transforms gradually into one of its own type. On the other hand the streptococcus never remains in a pure state in the epidermal lesion which it causes. Almost at the outset it is invaded by other microorganisms. If one examines serial sections of an impetiginous crust great numbers of staphylococci will be found in the upper portion while streptococci are only seen at greater depth and in much less abundance.

IMPETIGO FOLLOWING SCABIES AND PEDICULOSIS.

Aside from impetigo, which is primary, there often develop impetiginous lesions consecutive to some other dermatosis, especially one of a pruriginous character, such as pediculosis vestimentorum or scabies. The presumption in such cases is that the subject has some chronic focus of streptococcic activity, such as the retro-auricular fold. The finger nails used in scratching are the carriers and the lesions of the primary affections speedily become impetiginous. In any case of impetigo of the body that is at all extensive one must always suspect an underlying or an antecedent scabies or pediculosis.

RECURRENCES OF IMPETIGO.

Occasionally recurrent attacks of impetigo are noted, several outbreaks being seen in the same child. These recurrences may extend over a period of several years, each separated from the following by a long interval of apparent cure. In such cases a chronic focus is responsible and is usually to be found in the retro-auricular fold or the nostril. When the offending focus is discovered and treated recurrences cease.

It is in just this tendency of streptococci to become localized in the various folds of the skin that so many vague dermatoses originate. Many of the forms of intertrigo, for a long time considered as pure eczematous reactions, are of streptococcic origin. This mistake is favored by their tendency to become fissured and to exhibit serous effusion, both of which are cardinal signs of eczema.

RETRO-AURICULAR INTERTRIGO.

Among the forms of intertrigo of streptococcic origin perhaps the one most often overlooked is that occurring behind the ear. Sabouraud states that this is so constant one will surely find one or two examples if a hundred cases are examined for it in any pediatric clinic.

Behind the ear a yellow, crusted lesion is observed. In pulling the ear outward to obtain a better view a fissure is opened. Two eroded surfaces are in apposition and their borders are covered with yellowish crusts. Upon removal of

* Read before the San Francisco County Medical Society, January 4, 1916.

these crusts the underlying surfaces are most often seen to be covered with a fine, fibrinous exudate, although sometimes the lesion is nearly healed and only a slight erythema is visible.

The characteristic feature of this infection is therefore the exudate, which varies from slight moisture to marked oozing, and the consequent thick or thin, but always distinctive, impetiginous crust. The tendency toward chronicity is doubtless due to the fact that within the depths of the fold the organisms find the degree of heat and moisture which encourages their growth.

PERLÈCHE.

Another example showing the preference of the streptococcus for the folds of the skin is perlèche. This name designates a contagious, and sometimes epidemic, affection which attacks the angles of the mouth, usually on both sides, but occasionally on only one. The essential lesion is a fissure at the bottom of the fold, which is somewhat eroded and upon which the characteristic fine, fibrinous exudate is seen. On each side of the fissure there is an epidermal thickening. Cultures will give streptococci in a few hours.

INTERTRIGO IN GENERAL.

The marked predilection of the streptococcus for cutaneous fold is undeniable. One may say that all intertrigos are either primarily streptococcic or secondarily infected by streptococci. Many times intertrigo certainly appears as an essentially eczematous reaction because of the fine vesicles so often encountered. These vesicles are, however, found at the periphery of the lesion. At the bottom of the fold will be found a fissure covered with the characteristic exudate, and all such lesions will give within twelve hours a culture of streptococci.

This association of eczematoid elements with streptococcic lesions is particularly observed in the intertrigo so often seen in old and obese subjects. In young subjects the intertrigo may be purely streptococcic with no apparent reaction of an eczematous nature.

PARONYCHIA, PERIONYCHITIS, ETC.

The various infections about the nail are usually of streptococcic origin though often contaminated with staphylococci, so that even though pus be encountered it is more liquid than if caused by staphylococci alone.

ECTHYMA.

Certain lesions, occurring chiefly on the leg, called by French writers rupia of Bateman, and often passing under the name of ecthyma, begin as true impetigo. However, under the influence of depressive agents, bad hygiene, over-work, or any cause which greatly lowers resistance, the streptococcus, instead of being limited to the epidermal layers, invades the true skin and causes lesions which only heal with scar formation. The lesion presented is a round ulcer covered with a rupia like crust which, when removed, discloses not real pus but a sanious liquid. The lesions are indolent, have little tendency to spontaneous cure, are autoinoculable and may cause total incapacity of the part affected.

GENERALIZED STREPTOCOCCIC INFECTIONS OF EPIDERMIS.

Rarely one sees a generalized streptococcus infection involving practically the entire body. Sabouraud has recorded the case of a confrère who later died of diabetes in which the lesion began as an inguinal intertrigo and spread over the entire body, sparing only the scalp, the palms and the soles. I can recall a similar case, also in a physician, the starting point of which had evidently been a frank impetigo contagiosa of the face but which spread rapidly over nearly the entire body except for the hands, feet and portions of the lower legs. This subject later became tabetic and it is probable that only in cases of greatly impaired general resistance will the process become so wide spread.

IMPETIGINOUS RHINITIS.

The same condition of heat and moisture which favors the development of organisms in other locations obtains also in the nose. Nasal impetigo or impetiginous rhinitis is by no means uncommon. Because of its location it escapes notice and often serves as a focus for distribution of organisms to other fields. In its evolution behavior and physical aspects it does not differ from ordinary impetigo of the skin.

STREPTOCOCCI AS AN ETIOLOGIC FACTOR IN PITYRIASIFORM ECZEMA.

Often noted upon the face in children are sharply defined, slightly desquamative patches. These occur especially near the mouth. When seen in the proper light they appear lighter in color than the surrounding unaffected skin. These patches commonly pass as pityriasiform eczema. I am aware that by able men they are often considered as due to dietetic errors, particularly to excessive carbohydrate ingestion.

The suggestion of their possible streptococcic origin was first made to me by Sabouraud some years ago, and while I do not recollect that he had confirmed the opinion by a bacteriologic study, and while further I am not aware of any corroborative studies, I have nevertheless regarded them as due to streptococci foci of low virulence and have seen them disappear under mild mercurial salves.

Other dermatoses in which streptococci are found but in which their etiologic role has not been proven are scarlatina, pemphigus and elephantiasis. Of course streptococci are the acknowledged infective agents in erysipelas.

DERMATOSES INDIRECTLY DUE TO STREPTOCOCCI.

Various dermatoses are due to focal infections. Probably we shall see the list grow. Erythema nodosum, erythema multiforme, some of the forms of herpes and eczema—possible many more. That the streptococcus is the sole active agent in the production of these lesions is too much to say. That it is often an efficient factor cannot be doubted. Certain it is that in all obscure dermatoses a careful search for hidden foci must be instituted.

TREATMENT.

Success in the treatment of superficial streptococcic dermatoses lies not in the application of the chosen medicament alone. In crusted, impetiginous lesions the keynote to efficient treatment is found in the thorough removal of all the crusts, thereby allowing the remedy access to the oozing surface. Unless this is done all attempts are predestined to fail. In those lesions where the process has extended by a circumferential vesicular lesion which has ruptured, leaving a sort of epidermal collarette, great pains must be taken to cut away the dead corneous layer, for otherwise a pocket is left in which the organisms flourish because the remedy does not reach them. Once the surface is properly cleared away of crusts or epidermal pockets the remedy of choice is white precipitate ointment or the Eau d'Alibour of common French use.

White precipitate ointment in its official ten per cent. strength will probably cure any case if properly applied. For infants and those of delicate skin five per cent. is probably better. Sutton of Kansas City prefers to use it in one per cent. strength for all cases.

Eau d'Alibour is a combination which varies much in its published formulas. The most used for this purpose is as follows:

Copper Sulphate	2
Zinc Sulphate	3
Spts. Camphoræ	10
Ag. destil. q. s. *ad*	500

After thorough preparation of the surface this is applied on tampons three or four times daily, the lesions being protected in the intervals with zinc ointment.

For the infections of the retro-auricular fold, the nostrils, or perlèche, five per cent. of the tincture of iodine in 80% alcohol is recommended while in lesions affecting the inguinal folds the percentage of the tincture of iodine may be doubled.

Discussion.

Dr. Harry E. Alderson: The name, streptococcus, represents a large class of organisms, some of which are related only morphologically. There are certain definite types of streptococci, however, that we can positively identify as being the causative agents in some rather important dermatoses. Of course in an impetigo contagiosa (which is a simple affair ordinarily), we rarely have to fear a deeper infection developing, but sometimes cases are seen where there is impetigo and there are metastatic lesions due to the streptococcus.

Last year we had in the Skin Clinic of the Stanford University Medical School, a young girl who had four or five attacks of impetigo contagiosa with typical lesions on the face and fingers which we were able to observe. Each time, she had also a classical erysipelas of the face, and on one occasion she developed a parotid abscess, which was treated surgically. A careful hunt was made for a focus, and there was found a chronic lacunar tonsilitis. It will be agreed that this was probably the focus from which the attacks spread. This case, showing recurrent attacks of impetigo contagiosa, erysipelas, and one attack of parotid abscess, I think, presents an interesting picture.

The more serious affairs that may develop from special varieties of streptococci, namely, arthritis, endocarditis, and erythema nodosum (all of which we saw in one case last year in Lane Hospital) are very interesting. One of these patients was a young woman who had walked from Oregon, sleeping in the open along the way. When she arrived she was pretty much run down. She had a rather severe arthritis, typical erythema nodosum, and endocarditis. We made blood cultures but found nothing. She had several abscesses on her gums, and the streptococcus was found there in pure culture. These different lesions that she presented in connection with the abscesses of the gums seemed to point to the streptococcus as being the principal factor. Our failure to find the streptococcus of Rosenow was no doubt due to the fact that these organisms may occur in the blood in showers, and if a specimen is taken between times the organism will be missed.

Another young woman was in the hospital with erythema nodosum and arthritis, and streptococci were found in her gums.

As for the treatment of impetigo contagiosa, ordinarily it is rather simple, but there are cases which will come back with re-infections; they become re-infected from the fact that although the razor may have been sterilized the brush, soap, or strop had not proper attention. Or, in the case of children, some article of clothing has not been properly cared for, or some household pet is carrying the infection around.

In addition to giving the patients ammoniated mercury (5% in ointment), it is advisable to give them a spray of 1-1000 bichloride of mercury in water, with a small amount of glycerin to make it adhere to apply to the entire exposed surface.

While impetigo contagiosa is usually rather easily eradicated, occasionally there are cases where in spite of our various measures the trouble persists. This is particularly the case at times with infants. We have seen, after three or four injections of streptococcus emulsion, the rapid subsidence of an impetigo that had previously been very stubborn.

Dr. J. Cameron Pickett: Dr. Chipman's paper on streptococcic infections is a very important one, especially at the present time when streptococcic infections are so prevalent in San Francisco. I have never seen so many cases of impetigo and other streptococcic diseases as in the last few months.

The barber shops are one of the greatest sources of streptococcic infections in adults, spreading infection to the beard region.

Dr. Cullen F. Welty: In every large ear clinic, many such cases as Dr. Chipman has shown will be found. They are acute and chronic. We have called them eczema. This eczema back of the ear has the same peculiarities as eczema elsewhere. I am not familiar with the bacteriology of this affection, but do not think it starts as a streptococcus affair. It is my impression that the streptococcus part of this infection is of a secondary nature. A year or so ago, I was sent a case in which to discover the source of infection of facial erysipelas, which the patient had had five times. On most careful examination of the ear, nose and throat, no chronic suppuration was found. Accidentally, I happened to notice an eczematous patch back of both ears. The erysipelas disappeared with the curing of the eczema. The acute condition sometimes comes in operative cases. This, I think, is due to wound infection—carelessness on the part of the surgeon.

Dr. Howard Morrow: There seem to be a couple of points not thoroughly understood in regard to streptococcic infections. Impetigo on the face should not be spoken of as barber's itch. Barber's itch is ring worm and should be restricted to ring worm infection of the hairs of the beard. Another point in which there is a difference of opinion is impetigo in relation to the bullous impetigo of the newborn. In a hospital in San Francisco a short time ago, a maternity case had impetigo on the cheek. Three days after delivery the child developed impetigo, virulence unusually severe, and the child died in ten days. An autopsy

pure culture of streptococcus was returned from the heart blood. Three other cases developed the clinical condition of pemphigus neonatorum, or bullous impetigo of the newborn. Those cases got well in ten days or two weeks, and presented symptoms like dermatitis exfoliativa neonatorum, the so-called von Ritter's disease, undoubtedly a streptococcus infection. In those epidemics which Dr. von Ritter had described, the bullae are unusually few and the exfoliation unusually great.

Dr. B. Jablons: I was very glad that Dr. Welty did not agree with Dr. Chipman in attributing these skin lesions entirely to streptococci.

Jungano and Destaso make mention of the fact that many of these skin conditions are not directly due to bacteria associated with them formerly, but to anerobic organisms, and I would like to ask Dr. Chipman if anerobic cultures were made.

I have found that the streptococcus occurs in symbiosis with the Welch bacillus, the B. fragilis, and B. paraputrificus, that are to-day being recognized as having a pathogenic nature. The fact that they do occur in the folds of the skin, where anerobic conditions are possible, would tend to strengthen the assumption that not streptococci alone are the causal agents of these infections, but that pathogenic anerobes are really responsible.

Dr. Chipman, closing discussion: Dr. Jablons has pointed out the possibility of other organisms than streptococci being at the bottom of lesions we have thought to be of streptococcic origin.

In the case shown tonight an ordinary culture was hurriedly made and showed only staphylococci and micrococci catarrhalis. This does not prove that streptococci are not there. I feel positive they are and that, had the culture been made under strict anerobic conditions, they would have been found. It is certainly well known that streptococcic lesions are most easily superinfected with staphylococci and other organisms.

From lesions such as we have discussed tonight, Sabouraud has made cultures in a pipette, finding in the portion free from air pure cultures of streptococci and in the portion receiving air pure cultures of staphylococci.

Dr. Welty's observation that lesions of the retro-auricular fold associated with discharging ears are not due to streptococci but to faulty dressing, seems rather to prove than to disprove the theory of parasitism.

In any event, I hold no special brief for the streptococcus. Probably it causes the diseases we have discussed though admittedly many others are present at times. The chief point of interest, however, is not that they are due to any one organism, but that they are due to some organism—a point which seems to have been entirely overlooked by many, especially in the case of intertrigo and chronic retro-auricular foci.

In the recurrent cases of impetigo which Dr. Alderson mentioned there was undoubtedly some hidden focus of bacterial activity in the skin itself.

FIBROMYOMA UTERI; SKETCH OF TREATMENT, OPERATIVE AND OTHERWISE, WITH SPECIAL REFERENCE TO ROENTGEN RAY THERAPY.*

By HENRY J. KREUTZMANN, M. D., San Francisco.

In the following sketch I shall attempt to describe to you the development of the treatment of fibromyoma uteri, (f. m. u.) basing my remarks mostly on personal observation during my professional career, extending now over 36 years of active work.

I had the good fortune to be Assistant to the Chair of Obstetrics and Gynecology at the University of Erlangen under Prof. Zweifel in 1880-81. This was a glorious period of medical history; under the protection of antiseptic measures, new undreamed of operations were thought out and carried out successfully, especially abdominal operations. Zweifel was a moving spirit; everything newly published was tried, original ideas put to work. The f. m. u. that came to operation were all of large, sometimes enormous size; these women were all suffering severely, life frequently was a burden; the indication for operation was a vital one. The operation of these tumors consisted in ligating the uterine adnexa, putting some ligature around the lower segment of the mass, amputation, extra-peritoneal fixation of the stump in the lower angle of the abdominal incision.

Zweifel had seen and adopted Dr. Koeberle's procedure; Koeberle in Strassburg, and Spencer Wells in London were the most successful ovariotomists of their time; for f. m. u. Koeberle used his "serre-noeud," a sling with screw, using soft wire.

The mortality after this operation was high even in the hands of the best: 20-30%. Recovery after operation was tedious; the sloughing and granulation of the stump required many weeks. The stump retracted; almost always a ventral hernia developed—but the suffering before operation had been so intense that the women felt relieved even with all the shortcomings of this method of operation.

Shortly before that time the clamp had been discarded in ovariotomies; the ovarian pedicle was ligated, cut and dropped into the peritoneal cavity; the abdominal incision closed.

Karl Schroeder in Berlin was the first to adopt this procedure for f. m. u. The tumor was temporarily ligated with an elastic band, the stump was trimmed, sliced like a melon, carefully sutured together, then dropped.

Next to septic infection, it was found that hemorrhages from the stump were frequent causes of death after these operations, and the minds of many were busy devising ways and means to secure absolute hemostasis.

Professor Treutz of Leyden applied to the stump an elastic ligature and dropped it without further attention; Dr. Bardenheuer of Koeln took a kitchen utensil, a "spicknadel"—a needle with which to insert pieces of lard into meat; with this instrument he carried his ligature through adnexa and tumor. Billroth in Wien devised clamps with which to compress the tissue, in order to make a furrow, into which a safe ligature could be placed.

All these things I saw tried at Erlangen. Zweifel himself devised the "continuous ligature in parcels," running from one ligam. infundibuli pelvicum to the other.

The greatest progress in principle, aside from dropping the pedicle into the abdominal cavity, was made by Dr. Baer, in Philadelphia, who taught us to ligate the main arteries of supply of the uterus; Chrobak, Wien, formed a flap anteriorly and posteriorly and covered the stump carefully, calling his procedure "retroperitoneal treatment of the pedicle."

By this time the technic of the operation of

* Read before the San Francisco Polyclinic, March 9, 1916.

supravaginal amputation of the uterus had almost reached its climax; annoyance was occasionally caused by the ligatures, silk being mostly used; some ligatures worked their way into the bladder, forming the nucleus of a stone; others produced the very disagreeable "stump exudates."

To overcome this drawback, Bardenheuer removed the whole uterus, leaving no cercival stump at all; August Martin coined the word, that the best treatment of the pedicle was to leave none behind.

Another way to avoid stump exudates was found in abandoning ligatures altogether; compression-instruments were devised with or without cautery, electric and otherwise; in the hands of some experts splendid results were obtained, but by the adoption of fine absorbent ligature material, stump exudates disappeared and results became excellent, especially since very large tumors became rare, and the medium sized tumors offered very good operative chances.

While physicians were centering their energies in improving the technic, especially in reducing mortality of operations on the female genital organs, access to the uterus through the vagina was found to be a safer procedure than the abdominal incision, and so for a while the vaginal route was competing with the abdominal route in operations for f. m. u.; some French operators, Péan, Ségond did wonderful work with the aid of special retractors and clamps; even large tumors were successfully removed per vaginam through what they called "morcellement."

Notwithstanding American operators were the first to remove ovarian tumors through an incision of the Douglas cul-de-sac (Byford, Chicago) their energies were put to perfecting rather the technic of abdominal operations, and today, following their example, vaginal operations for f. m. u. (aside from sub-mucous tumors) are rarely performed.

The ablation of the uterus—abdominal or vaginal, supra-vaginal or total,—means severe mutilation, grave interference with the functions of the genital organs. In some cases a different, conservative treatment offers itself from the very nature of the case, as with the pedunculated submucous or subserous tumor. Here the pedicle is ligated, the tumor, but not the uterus, is removed. The same principle was employed also for intramural tumors. Enucleation, even of large tumors, was recommended and successfully done.

The advantages of this procedure are manifest: the organ remains, the offending tumor alone is removed. My own experience with the enucleation of these intramural fibroids has not been very fortunate; I have done it a few times, removed one or several tumors, only to find more present after a few years. It seems others have had similar unpleasant experiences; therefore, most operators at the present time perform hysterectomy as a routine operation, reserving enucleation for special cases.

The operations heretofore mentioned are to be considered as radical treatment, since the tumors, with the uterus (mostly) are removed. It was natural at the time when the mortality of these radical operations was very high that other less dangerous, palliative operations were advised and carried out.

For some time curettage of the uterine cavity and cauterization were much in favor; in some cases a simple, harmless, useful procedure; but where the uterine cavity is much distorted, sinuous in consequence of the presence of fibroid tumors, curettage proved itself a rather difficult and at the same time dangerous procedure. At present it is employed merely for diagnostic purposes, where the presence of a carcinoma is suspected.

For a short time ligature of the uterine arteries was done from the vagina; but this groping in the dark was soon abandoned.

Hegar advised the removal of the ovaries; I have seen marvelous results from this operation; hemorrhages ceased, tumors diminished in size, or even disappeared entirely. But in the majority of cases the condition remained unchanged. Hegar's operation was a compromise in the face of the high mortality of myoma operations then prevailing; at present it has only historic interest.

For years physicians were intensely concerned with the technic of operations for f. m. u. When its perfection was attained, when vast numbers of women with f. m. u. had been operated, then physicians wished to know what had ultimately become of their patients, what were the final results of their operative activities. A number of searching, interesting reports were made, and important results published.

It was noticed that in a few cases carcinoma had developed in the cervix, when supravaginal amputation had been done; this observation brought many to favor total extirpation in every case. In other instances, after total extirpation—panhysterectomy—cystocele, prolapse of the vagina was observed. So today most operators vary their procedure according to conditions present; if in a nulliparous woman the vaginal portion is perfectly healthy, the simple amputation is done; but if the vaginal portion is torn, infiltrated, eroded, then it is best to remove the cervix too.

Furthermore, it was found that many women suffered severely from molimina climacterii, much more so and for a longer period than when cessation of menses came about in a natural way; these symptoms were especially distressing in younger women. It was therefore advised to leave an ovary or some ovarian tissue behind whenever the ovary was found to be in a normal condition. But from these ovaries left in the abdomen, trouble arose: some became cystic, others developed into neoplasms; another operation, after some time, had to be performed. From observation extending over many years the following practice is now being accepted:

In women near or at the menopause, remove the uterine adnexa always; in younger women, if the ovaries are in a perfectly sound condition, and if circumstances and possibilities have been explained, an ovary or piece of it may be left.

Of greatest importance and much discussed has been the matter of indication for myomectomies.

When every third or fourth woman died after operation, the indication for such a dangerous undertaking was most carefully considered. Hemorrhages, pressure on diaphragm, intestines, bladder, had to reach a rather high degree before a woman would risk her life with an operation. With the perfection of technic and improvement in results the indications were much extended. It was soon claimed that f. m. u. were in the same class as kystoma ovarii—that is, they should be removed whenever found, whether producing symptoms or not; it was considered wise not to allow them to become troublesome but rather to operate before that stage. It was contended that the presence of a f. m. u. favored and frequently indirectly caused inflammatory affections of the uterine adnexa. Special stress was laid on the observation that occasionally a f. m. u. was not a f. m. but a fibro sarcoma; that a sarcomatous degeneration of the f. m. may take place; that sarcoma or carcinoma may co-exist with the f. m. u.

But these extravagant views of a few possessed of furor operativus were never shared by the medical profession; these views are not sustained by the evidence of every day practice. The sane opinion is that f. m. u. themselves are harmless occurrences; they frequently exist without any symptoms whatever; they produce occasionally discomfort; they interfere occasionally with the well-being of the bearer; they menace life only in extremely rare cases, if ever. To relieve the symptoms constitutes a cure. Conservative physicians have always considered operation for f. m. u., with its risks and sequelæ, as rather out of proportion to the morbid condition; they have looked for some non-surgical remedy, for milder treatment.

Years ago, the continued use of some form of ergot was advised and good results were reported. Electricity was much used in the 80's of the last century, especially since Apostoli in Paris put this treatment on a scientific basis; today electric treatment of f. m. u. is almost forgotten.

In the last four or five years Roentgen rays have been more and more used. At first X-rays were applied in an irregular way, until Dr. Albers-Schoenberg, Hamburg, worked out an effective method; the greatest progress was made, however, in the Freiburg Frauenklinik under Professor Kroenig by Drs. Gauss and Lembke. These gentlemen made many biologic researches upon plants and animals; aided by expert engineers, they created what is called the "Freiburg method," that consists in administering large doses of hard rays with perfect protection of the skin.

When I read many reports of X-ray therapy in Gynecology, I became so much interested in this procedure that in the fall of '13 I made a trip to Germany for the purpose to study actinotherapy in gynecologic practice, to familiarize myself with the technic, to study the scope of application, and to learn of results.

In a paper read before the San Francisco County Medical Society, spring 1914, I reported my experiences at length. I wish once more to emphasize the following—I found in Germany that operations for f. m. u. had been almost entirely superseded by X-ray therapy. I was informed that 85 to 95% (varying at different clinics) f. m. u. cases seen were treated successfully by X-rays; that is, the symptoms were relieved, all tumors diminished in size, many became imperceptible. The standpoint is now: operation only when X-rays are not advisable, as against the standpoint at the beginning: X-rays when operation is contra-indicated.

The advantages of rays treatment compared with operation are manifest: no deaths, no hospital, no narcosis, no anxiety, no suffering, no complications (phlebitis, ventral hernia, adhesions). The woman makes an appointment with her physician as with the dentist, though there is no such torture as in the dentist's chair. She goes home to return at another time.

Aside from this there are still a few things to the credit of X-rays; after operation the climacteric molimina are frequently most distressing; women treated with X-rays enter menopause gradually and suffer little; furthermore, when desirable, suppression of menses may be avoided, reduction to normal flow may be obtained under treatment with Roentgen rays.

I shall now recite just three typical cases treated by myself:

1. Mrs. L. Beginning of 40. Never been pregnant. Symptoms: protracted profuse menses with consequent anemia. Status: multiple fib. m. u. of small size.

Result. Cessation of menses; blood normal; uterus quite small; nodules scarcely felt.

2. Mrs. Sch. Beginning of 40. Children. Symptoms: profuse metrorrhagia, anemia. Status, f. m. u. of irregular shape, uterus enlarged to size of big man's fist. Had entered hospital for operation. Consulting surgeon advised against operation on account of severe anemia.

Result of X-ray treatment: cessation of menses; uterus small; some nodules just felt; blood normal; restoration to health.

3. Mrs. S. Beginning of 40. Children. Symptoms: severe menorrhagia. Status: adipositas, anemia; f. m. u. enlarging the organ to three times its normal size; on left side of uterus a mass protrudes, size of small apple.

Result: Cessation of menses; blood normal; uterus of normal size; mass on left side just perceptible.

In finishing this paper I want to say just a few more words. The shaping of our views on fibromyoma uteri and the development of operations for these tumors in the last four decades, form one of the most interesting chapters of modern medical history.

The present status of fibromyoma uteri may be summarized as follows:

1. Many fibromyoma uteri need no treatment whatsoever.

2. The bulk of those fibromyoma uteri that need treatment will fall to the domain of Roentgen-ray therapy.

3. The operations for fibromyoma uteri have reached the highest degree of simplicity, efficiency and safety.

INCIPIENT SYSTEMIC DISTURBANCES AS SHOWN BY OCULAR SIGNS.*

By E. W. ALEXANDER, M. D., San Francisco.

The diagnosis and prognosis of many systemic conditions have become so intimately connected with the signs and symptoms of ocular origin that proficiency in the use of the ophthalmoscope will become universal amongst internists in a few years.

The significance of an albuminuric retinitis, disseminated choroiditis, Argyll-Robertson pupil, or papilloedema is now instantly appreciated even by the tyro of internal medicine.

Still further, as illustrative of more specialized signs, we find a beginning temporal atrophy to be suggestive of an early multiple sclerosis; transient attacks of diplopia, of tabes; hemorrhages in the retina, of apoplexy, etc.

But what needs to be emphasized is the correlation of eye signs and the finer balance of the organism as a whole: the signs indicative of disturbed vasomotor and trophic nerve functions, of errors of metabolism, and of hygiene.

Most of such lesions of the ocular tunics are dismissed by the thought that they are due to "constitutional defects" (except for their immediate local indications for treatment). But why treat them so casually? We are missing one of the finer privileges of our profession. We are delaying the progress of preventive medicine by not insisting on a careful estimation of the subtle balance of physiological processes.

These disturbances of efficiency naturally fall into several groups.

Those dependent upon the cardiovascular system often come first to the ophthalmologist because of the failure of a very important organ of special sense. But unless the ophthalmologist has such a possibility in mind, the primary cause of the local symptoms will be overlooked.

It is my practice in all adult cases complaining of eye strain, for instance, to ascertain the presence or absence of certain functional defects; for it has been my experience that the subjective symptoms precede any definite objective signs. My suspicions are always aroused by a history of transient attacks of amblyopia, photopsias of various kinds, inability to sustain accommodation, transient attacks of diplopia and vertigo, tinnitus aurum, especially in the recumbent position, flushes of blood to the head, etc. If such symptoms are elicited and it is found that there is a retinal hyperemia or a mild retinal arteriosclerosis, or especially if there is a mild peri-vascular oedema—more pronounced at the arterio-venous crossings—one may be reasonably certain that there is some general vascular disturbance. While such patients may be doing their daily work as usual, not infrequently a high blood pressure is found, or one of the various defects in the cardiac region, or a vasomotor disturbance, or an abnormal blood picture. Furthermore, how can we expect ocular comfort under such conditions even with the most careful attention to the refraction and muscular balance? It is hopeless to alleviate the focal symptoms unless an internist contemporaneously takes care of the circulatory system.

But the important point is the early recognition of a systemic inefficiency before it has seriously involved the vital organs, before the appearance of a frank retinal arterio-sclerosis with its complications, or a nephritis, or any of the secondary results of cardiovascular failure, in short, before the patient suspects that there is anything wrong with himself.

In respect to the nervous system, the same generalization holds true. Particularly important in the early diagnosis of tabes, multiple sclerosis, and intracranial tumor, are transient attacks of diplopia and amblyopia; also defects in color fields; cerebrospinal syphilis is suggested by unequal pupils before an Argyll-Robertson appears. The systematic study of the fundus in all eye cases, as well as attention to the ocular muscle balance and the more frequent taking of fields will lead to suspicion and diagnosis before ataxia and other serious symptoms appear.

There are other interesting groups associated with the respiratory, nephritic and gastro-intestinal systems, but there are two subjects which are particularly interesting to me.

The first might be entitled the conservation of vision and health in phlyctenular disease, and the second, ocular signs and symptoms of errors of metabolism.

We are glad to see a steady growth in the propaganda for the prevention of blindness due to ophthalmia neonatorum. The ravages of such an inflammation are rapid and destructive, and the physician is keenly alive to the necessity of dealing with it radically. But in ophthalmia due to phlyctenular disease we have a progressive and chronic affair which extends over years; and because its periods of acute exacerbations are not attended with immediate danger to sight, the disease is allowed to run its insidious course, being treated only at its acute intervals as a local condition. What is the result? I am sure I am not exaggerating when I say that I have seen more useless eyes due to dense leucomata of the cornea, with phlyctenulosis as a cause, than I have similar eyes due to ophthalmia neonatorum, or to optic atrophy of glaucoma. But of even greater frequency are those cases, not of useless eyes but inefficient vision due to faint corneal nebulae. These are, numerically, surprisingly large if one will take the trouble to condense an oblique cone of light on the corneae of all patients who see only 6/7 or 6/10 with their correction. I firmly believe that the economical and sociological factors in these large numbers of phlyctenular eyes are worth considering seriously, and further, that the ophthalmic surgeon who allows repeated attacks of phlyctenular keratitis to follow each other without thorough systemic investigation and treatment is as culpable as the one who does not employ or advise Crede's method.

The pathogenesis of phlyctenulosis is still a mooted point, but it is generally agreed that it is due to constitutional defects. I am convinced that there are two main elements in the symptom com-

* Read before the San Francisco County Medical Society, March 28, 1916.

plex which are practically always present. The first is a tendency to lymphatic hypertrophy, and the second is a gastro-intestinal disturbance. The two form a vicious circle. The picture may be further elaborated by a tubercular infection of the lymphatic or bones, or an eczema in different localities, carious teeth, purulent middle ear, mental defects, etc.

It is difficult to estimate which is the keystone of this arch of toxic foci, but my experience leads me to place the rôle of the tonsils and adenoids in a prominent place. It is useless to put such a patient on a careful diet and give tonics, while quantities of shiny mucus and particles of putrefied inflammatory products from the tonsils are being constantly swallowed. First enucleate the tonsils and adenoids; then a carefully prepared diet and intestinal regime combined with tonics will develop a tone which can easily prevent further attacks.

Of course, carious teeth must be extracted, tuberculin must be administered in cases which are clearly tubercular, broken down glands must be removed, etc. In not a few cases no progress will be made unless the patient is put to rest in a hospital for two or three weeks. I am particularly partial in such cases to diaphoresis, intestinal lavage, control of the usual acidosis with antacids and diet, and massage.

It is remarkable how flooded the system may be with products of auto-intoxication and give no noticeable signs except those in the eye. These children very often run daily temperatures, have the most offensive stools, pass albumen in the urine, etc., and are candidates for a defective, or certainly at least a deficient classification. Therefore the early recognition of the importance of the signs of phlyctenular conjunctivitis and keratitis will lead to conservation of efficiency not dreamed of.

It has been recognized for years that certain inflammations of the eye are due to errors of metabolism, e. g., retrobulbar neuritis, scleritis, and cataract. We still have a great deal to learn concerning the finer qualities of metabolism. Disturbances of metabolism go hand in hand with habit in its broad sense, with the vasomotor system and the trophic nerve system.

Ophthalmologists often see the incipient signs of a breakdown of the balance of these processes before constitutional changes of sufficient extent have developed to attract the attention of the patient or the internist or laboratory worker. At other times laboratory tests and physical signs are positive where the patient is unaware of any defect—except the eye.

These cases are most common among people of 45 or more years of age, and if the signs are heeded many years of efficiency and happiness may be added to their lives.

I will mention a few of a long list of such signs. Loss of eye lashes or eyebrows. Here the metabolic error is not infrequently associated with ductless gland atrophy or insufficiency. A brawny eczematous thickening and redness of the loose skin covering the lids will recur and persist most exasperatingly under local treatment. Chronic blepharitis and conjunctivitis due to diabetes, gout, etc., also will not recover unless systemic conditions are improved; likewise episcleritis, corneoscleral infiltrations, marginal keratitis, cyclitis, certain forms of cataract, vitreous opacities, synchisis scintillans, retino-choroidal degeneration, detachment of the retina, retrobulbar neuritis, etc.

In coping with these lesions we are confronted with a lack of laboratory and physical signs, and also in most cases very few subjective symptoms apart from the eye. Therefore it is difficult to make the patient realize the necessity of a more or less radical change of habit; and because of the negative objective signs the physician will not take the initiative in prescribing the necessary eliminative and nutritional measures.

However, in the study of metabolism we know certain units of food are necessary to produce a given number of calories of heat, or of a certain amount of energy for the activity of the individual per kilogram of his weight. Also that the waste products must be properly excreted, and that the nervous tone must be kept up, etc., etc.

Dr. George De Schweinitz has thrown a lot of light on a subdivision of this subject, viz.: the disturbances of the uvea due to auto-intoxication of gastro-intestinal origin. His studies have shown the marked complexity of the subject, and the absolute inadequacy of our present methods of investigation.

Metchnikoff has done much along the same line. He has shown that the physiological processes may be apparently normal in the presence of very marked putrefaction.

In other words, the eye shows conclusively that metabolism is not right, but we are unable to put our finger on the lesion. The only thing to be done is to regulate the habits and apply stimulative measures to the various systems in an empirical way, until some more satisfactory technic can be developed to test metabolic functions. At the same time we will anticipate and prevent serious damage to vital structures.

In conclusion I wish to state that while it is the duty of the ophthalmologist to insist on a decompression when there is papilloedema with infiltration of round cells before possibly a localization can be made of a brain tumor; to insist on the use of specific remedies in the presence of disseminated choroiditis despite the negative Wassermann; to insist on rest in bed in the presence of retinal hemorrhage even with only a trace of albumen in the urine and not a very high blood pressure; it is, from the standpoint of preventive medicine and conservation of efficiency, also his duty to insist that proper laboratory and clinical tests be made in these early ocular signs of breaking down of systemic groups. Also, in the absence of conclusive signs to the internist, and only the eye signs and subjective symptoms as a basis, the patient should be put on a program of habit, medication, and hygiene which will not only cure the local condition but stop the subtle undermining of vitality and efficiency.

By having these points in mind the ophthalmologist will find that the dry routine of refraction

will take on an entirely different aspect of marked clinical interest, and our reputed narrow specialty will become a surprisingly wide one. And finally, that better co-operation between medicine and surgery and the specialties will be stimulated.

Discussion.

Dr. Harold Gifford, Omaha: As we go along we are more and more impressed with the fact that the ophthalmologist is getting to be somewhat of a minor factor in the treatment of a large number of eye diseases, and between the dentist and general practitioners, not much is left for the oculist! That, however, does not relieve us of the responsibility of getting all the light that we can on these obscure cases. Looking back on 30 years of practice, I can see many cases which I treated somewhat vaguely and ineffectually, without knowing at all the real cause of the trouble—cases of iritis, uveitis, retrobulbar neuritis—cases which we used to treat, and many of them got well, without attention to the real cause of the trouble, which may have been a temporary one. Of course, we knew that a lot of obscure eye diseases are due to nasal and general troubles, but until comparatively recently I did not appreciate how many were due to bad teeth. Since we have known the effects of pyorrhea, and have a radiogram of the teeth as part of the regular examination, we diagnose a good many cases that we formerly missed out on. To just give you one which impressed me: The patient, a woman of about 35, had lost one eye from malignant uveitis. All sorts of things had been tried. By giving full doses of salicylate we could hold the thing for a time, but one eye was practically lost and the other eye was started in the same way. We had asked her whether there was anything the matter with her teeth and she said "Nothing at all." They had been gone over by a good dentist who said that they were perfectly sound. We had a radiogram taken which showed two little apical abscesses. We had those teeth pulled out and all symptoms disappeared; the threatened blindness is a thing of the past. When it comes to treatment of these cases which depend upon some extra-ocular cause, ought we to simply turn them over to the general man and wash our hands of them, or should we after a thorough examination and a line of treatment and suggestion by the general practitioner reassume the main responsibility of the case and see that the treatment is carried out with full regard to the importance of the eye symptoms? There is a strong temptation to follow out the former course, but I believe the latter will give us a better result so far as the eyes are concerned. With regard to the treatment of trouble depending upon arterio-sclerosis, including incipient cataracts, the question of how long the treatment should be continued is an important one. If we grant that iodide of potassium or any other remedy is of use in these cases, can we escape from the conclusion that the remedy should be continued as long as the patient lives? Certainly the tendency to arterio-sclerosis is not going to diminish with advancing age. This brings me to a point which is sociological. I am a socialist politically, and I think the practice of medicine will never be what it ought to be until socialism is established, at least in medicine; that is, not until the economic factor is entirely eliminated and we can feel free to recommend whatever treatment, physician or surgeon seems best, without regard to the pocketbook of either the medical man or the patient.

I enjoyed Dr. Alexander's paper very much, but I differ from him slightly as to the treatment of phlyctenular disease of the eye. There are parts of the world where what he says about phlyctenular disease is very true. In the south among the negroes, it is very common and destructive, and in the clinic at Zürich where I was formerly assistant, the hospital was half full of phlyctenular keratitis; but in Nebraska and vicinity, I must say that a large portion of the cases of phlyctenular disease that I have seen, have occurred in children who seemed otherwise perfectly healthy, and who have made excellent recoveries without any treatment whatever; in spite of the well-known fact that a large number of these cases show tuberculin reactions. I have seldom resorted even to the cod liver oil or iron. If you can get them to take good care of the edges of the lids, to keep the nose well cleaned with salt solution, and to use yellow ointment in the eyes and on the lids and in the nostrils, and can have this kept up for a month or two after the least sign of the disease have disappeared, the great majority of them get well without any other treatment.

Dr. W. W. Behlow: This paper of Dr. Alexander's seems to me to strike a very fundamental note. The very wealthy patient is able to pay for the various specialists' examinations and therefore may derive benefit from such examinations. The pauper, the indigent, who comes to our free clinics, really receives better examinations and better correlation of these examinations than the very wealthy patient does. The man half-way between, the man of moderate means, the wage-earner, does not receive any of this special work. Realizing that, a group of physicians in St. Luke's decided to co-operate in the diagnosis of disease for the average citizen. The result has been that the cases have been worked up more intelligently, and the examination of the eye has certainly told the members of this particular organization considerable about the general condition of the patient. I have been told that in one case the finding of a keratitis was the particular sign which made the diagnosis of syphilis. Again, the finding of hemorrhages in the retina has been of utmost importance in pointing toward myxedematous state, arteriosclerotic state, or nephritic state. To make my discussion rather brief, I would say that it seems to me that we have in the past failed to recognize the importance of definite correlation of various specialists (and I do not except the eye) with the general medical and surgical work, and that this failure has been one of the greatest drawbacks in the practice of medicine for the average patient. The sooner we get to the point where the ophthalmologist, aurist and laryngologist, neurologist and other specialists, join with the so-called internist and surgeon in really giving medical treatment and medical diagnosis to our average patient, not the Midas or the pauper) the sooner we will arrive at much better medicine and one which will drive the so-called cults out of existence.

Dr. Emmet Rixford: There is a rather powerful force active at present in the direction indicated by Dr. Behlow, namely, the fashion of medical men to get together in small groups with a common waiting room, a common telephone operator, stenographer, etc., and a common laboratory. From three to five doctors, a medical man, a surgeon, an eye man, a gynecologist, associating themselves together and working together, is quite a common thing in the eastern cities and there is more or less of it here. I think this is an economic arrangement and one which will make it easily possible for the man of small means to have the services of several people under the direction of one of the group who may be his particular physician.

There is another strong force in most of the states of the Union leading in the same direction, and that is industrial accident insurance. Under the California law, some of us have had the experience of patients from the laboring classes being sent around from one specialist to another until they get pretty much the opinion of everybody and at not great expense.

SALVARSAN AND NEOSALVARSAN IN TROPICAL DISEASES.*

By HERBERT GUNN, M. D., San Francisco.

The following article is a review of the literature to which a few personal observations have been added. Since the advent of these drugs they have been employed extensively in tropical diseases and in some with beneficial effect.

Malaria: In this disease salvarsan seems to produce the greatest effect on the benign tertian parasite which is the most amenable to quinine treatment.

While several observers claim that salvarsan is destructive to all of the malarial parasites, the consensus of opinion seems to be that if it is to be used it should be combined with quinine treatment.

Werner, working in South Africa and dealing with the subtertian and tertian benign parasites, states, with salvarsan the blood could be cleared of parasites in an average of 17 hours while with quinine it took 36 hours.

To produce a cure from one to two injections, 0.5 grm. are necessary and it must be administered during the acute stage of the disease as there is but very slight effect if given during the latent period. He advocates a combined treatment with quinine and neosalvarsan and states that considerably reduced doses are required.

Amebiasis: The introduction of emetine into medicine has given us a remedy which greatly facilitates the treatment of amebic dysentery. Nevertheless, there are cases which resist all treatment and in these salvarsan may prove to be of benefit.

Further, it has been shown by Allen, Bærmann and others that emetine does not always destroy the amebæ in the intestinal tract to the extent that the amelioration of symptoms would lead one to believe.

Winn, at Panama, reports 12 cases treated with salvarsan and neosalvarsan with improvement in all. The number and character of the stools changed within 24 hours and the stools were free from amebæ within from 24 to 72 hours.

Willets, in Manila, treated eight cases of amebiasis not showing dysenteric symptoms; i. e., cases harboring cysts of entamebæ histolytica, with complete destruction of the parasite in all.

In the same class of cases ipecæ was efficient in 70% of the cases and emetin in only 36%. I have used neosalvarsan in several cases to complete the cure after a thorough course of emetin had been administered. The patients were cured but how much benefit was due to the neosalvarsan I was unable to determine, as the demonstration of encysted forms in such cases is often impossible. However, such a therapy, in view of Willits' findings, would appear to be sound.

Trypanosomiasis: Sleeping sickness, due to the trypanosoma gambiense, has been treated quite extensively with salvarsan and neosalvarsan, but with no very definite beneficial results up to the present time.

Vorwerk reports 12 cases treated with salvarsan. He states that the trypanosomes disappear from the blood shortly after the injection but that relapses occur. In his opinion it is of less value than atoxyl.

Lurz treated 16 cases with improvement in the general condition and believes that if used in the early stages it is of benefit.

Aubert treated 51 cases with salvarsan in various stages, and states the drug improves the general condition and causes a gain in weight. One injection produces a sterilization of the blood for four months.

Heckenroth and Blanchard state that one or two injections of salvarsan or neosalvarsan cause, in certain cases, a sterilization of the blood, but that the course of the disease is not checked and the patient dies. In such cases the cerebrospinal fluid contains many trypanosomes unaffected by the drug.

The drug injected subdurally in some of these cases caused a disappearance of the trypanosomes and lymphocytosis, but no permanent improvement of the condition.

Levaditi and Mutermilch have experimented with the serums of rabbits infected with nagana trypanosomes, (T. Brucie). The serum was obtained as follows:

1st from salvarsanized healthy rabbits.
2nd from salvarsanized infected rabbits.
3rd from untreated infected rabbits.

Three kinds of serum were thus obtained: No. 1 serum simply salvarsanized, No. 2 serum salvarsanized and containing a trypanolytic amboceptor, No. 3 serum simply containing a trypanolytic amboceptor.

These serums were injected into infected mice with the following result:

Salvarsanized serum effected but slightly the development of the trypanosomes, and hardly delayed the death of the animal.

The effect of the trypanocidal serum containing only amboceptor was practically the same, whereas the effect of the serum salvarsanized and trypanocidal was to stop the multiplication of the trypanosomes and when given in large doses to rid the blood of them.

They suggest that such a serum be used intraspinally in sleeping sickness.

In dermal leishmaniasis (L. tropica Wright) the so-called oriental sore or tropical sore, salvarsan seems to be of very little value, although isolated cases are reported of cures being effected by it.

The most striking effects produced by salvarsan are seen in the diseases produced by the spirochætes.

In yaws or frambesia tropica, caused by the treponema pertenue, the results have been excellent.

Harper states, "every Fijian native who does not die in infancy contracts yaws, usually at about the age of two years."

The indirect mortality is great. Hc treated 90 cases with salvarsan and neosalvarsan with excellent results.

The Yaws Hospital in St. Lucia (Windward

* Read before the San Francisco County Medical Society May 4, 1915.

Islands) treated 245 cases in one year with 229 cures. The drug was used intramuscularly.

Girling, in Belgian Congo, treated 50 cases with rapid and complete cures in all. The drug gave relief in 48 hours, the eruption was dry in a week and gone in 15 days. He states many of these cases had been under treatment for years with atoxyl, tartar emetic, etc.

Grothusen reports 16 cases with a cure in 83% after one injection.

Relapsing fever: This name covers several diseases found in different parts of the world and produced by various spirochætes—

The European due to the spirochæte obermieri or S. recurrentis; the African due to the S. duttoni; the Asiatic due to the S. carteri; and the American due to the S. novyi. In all of these salvarsan and neosalvarsan act as a specific.

Primet, Trans. 13th Internat. Congress of Medicine, summarizing the results obtained by various medical officers in the treatment of relapsing fever in Tokin, since the introduction of salvarsan states: In 102 patients salvarsan was injected subcutaneously, with a mortality of 5.9%, the previous mortality being from 50-75%; 87 were injected intravenously, in varying doses, with a mortality of 2.9%. 270 treated by one officer reducing mortality from 40% to 3%, the minimum efficient dose being 0.2 grm. 195 treated with only 2 deaths—dose 0.25 grm. He states relapses were common after all doses.

While the mortality of relapsing fever noted above as occurring prior to the use of salvarsan appears to be extremely high, there are several writers who note similar mortality among cases in Indo-China; for instance, Perthuisot, who states the mortality in 1911 was 69%, while in 1912, after introduction of salvarsan, it fell to 7.6%, and in 1913 to 4%. He used 0.15 grns. and never found it necessary to give a second injection.

Conseil, in North Africa, treated 11 cases with salvarsan 0.008 grm. per kilo body weight—with 10 cures and one relapse, but all showing very severe reaction, and 11 cases with neosalvarsan 0.021 to 0.007 grm. per kilo body weight, all being cured with one injection and the reaction being much less severe than with salvarsan.

Lamoureux, on the West Coast of Madagascar, treated 25 cases of relapsing fever and believes that 0.3 grm. is inconstant in action and was not always sufficient to cause the disappearance of the spirochætes.

Swift and Ellis, experimenting with Spirochætes duttoni, propagated in white rats and mice, showed that salvarsanized serum had a most marked spirochæticidal property.

The same was shown in human beings, neosalvarsan producing a more active serum than salvarsan.

In leprosy as a rule no effect has been obtained, although Schmitter in Manila reports 25 cases showing improvement in many with the use of salvarsan.

In filariasis these drugs have proved useless, though it is thought they may be of some value in elephantiasis.

I have used salvarsan and neosalvarsan experimentally in several cases of rectal bilharziosis without any effect, the miracidia being just as active in the ova after treatment as before.

In clonorchis sinensis infections I have used both drugs—in six or seven cases.

While there was no effect on the life of the parasites, the symptoms seemed to be somewhat ameliorated, there being less pain in the region of the liver and upper abdomen, and the general condition being improved. This improvement lasted for several months, and in two cases the patients returned requesting a second injection and in one a third. In all of these the Wassermann was negative.

Other parasites present during treatment in some of these cases were hookworm, trichocephalus dispar, strongylcides intestinalis, ascaris lumbricoides and cercomonas intestinalis, upon none of which was there any noticeable effect.

SUPPLEMENTARY REPORT OF HUMAN CASES OF RABIES IN CALIFORNIA.

By J. C. GEIGER, M. D.,
Assistant Director, Bureau of Communicable Diseases of the California State Board of Health, Berkeley.

In a previous article,[1] the number of cases of rabies in human beings in California was reported as 34. A report of two additional cases, making 36 in all, is given, as follows:

No. 35. D. M., a child, age 6, died of rabies in Oakland on August 16, 1915. On July 17th this case was bitten by a dog proven rabid by microscopical examination at the State Hygienic Laboratory. She was badly bitten on both hands, the right hand showing a tear an inch long underneath the thumb, a deep puncture on the top of the thumb, two punctures in the palm of the hand, and two deep punctures on other fingers. There were three punctures on the back of the hand. On the back of the left hand there was a deep cut one-half inch long, an inch tear was on the back of the middle finger and a similar size tear on the palm of the hand. There were a number of punctures on the back of the hand and there was a deep tear on the inside of the ring finger. All the wounds were cauterized with carbolic acid over two hours after the biting.

The child was brought to the laboratory on July 19th and administration of the Pasteur treatment was begun.

On August 13, four days after the completion of the treatment, the mother telephoned this laboratory that the child was not well. That afternoon she was brought to the laboratory. The mother said the child had come home from school the day before complaining of pain in the left arm from the fingers to the elbow. The arm was not tender to touch. The scar on one of the fingers was red. The temperature was 99.7, pulse 124, knee jerks could not be obtained. There was loss of appetite. She could drink water without difficulty, but only wanted a little at a time. She was restless the night before and cried twice.

When seen on August 14th the temperature

was 103, pulse 120. The child readily recognized attendants and seemed normal. The pupils reacted but were dilated, especially the left. When offered water she seemed adverse to drinking it. On persistent urging she was able to drink some with a great deal of difficulty, complaining of pain when she tried to swallow.

On August 15th the patient was highly nervous in the morning, afternoon, and night. She was very talkative, looking into space, seeming to see something with a look of terror. She would throw her arms around her mother and cry very sharply, then sob, then quiet down for a few moments. She would call for water and when offered it she would refuse to take it. There was no real convulsion. The fact that one merely spoke to her would cause a spasm of the face, head and arms, with a jerking of the head. These paroxysms would pass very shortly and then she would appear rational.

On August 16th the child was in a coma and died about 11:30 p. m. No autopsy was held. From the symptoms of this case there is no doubt that the cause of death was rabies, and again points out that complete immunity, even with the intensive Pasteur treatment, is not established fast enough.

No. 36. M. P., a man, age 36, died or rabies on May 8, 1916, at Bieber, Lassen County.

That this patient was bitten could not be established. Investigation showed that a neighbor owned four dogs, one of which, after fighting with a coyote, was shot about two months before when symptoms of rabies were noticed. Shortly after this one of the dogs, with an injured foot, was cared for by the patient. This animal died three or four days later with typical symptoms of rabies. The patient's hands were always cracked and cut, and the supposition is that the infection was probably contracted in this manner. This case is similar to S. N., reported in the previous paper,[2] in that no history of a bite was obtained and that the symptoms were a laryngeal pharyngeal paralysis.

Portion of the brain tissue sent to the State Hygienic Laboratory was positive for rabies on microscopical examination and animal inoculation. It is interesting to note that sixteen persons were given the Pasteur treatment as actual contacts of this case.

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1. Geiger, J. C. Human Cases of Rabies in California and Their Treatment. California State Journal of Medicine, June, 1916.
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RECENT WORK IN EPILEPSY.*

By EDWARD W. TWITCHELL, M. D., Sacramento.

Epilepsy has so long been one of the opprobria medicorum that we welcome any thing new of promise, either in respect of cause or of treatment, even if the promise be a bit vague. I have endeavored to put together the results of a search of the literature of the subject covering the last three or four years.

The methods of research are so largely biochemical and bacteriological that they present a striking contrast to the methods of not so many years ago when the histological method was almost the exclusive one.

In therapy, the combination bromide-dietetic treatment is that which seems to be the prop of the great majority, and in this majority are included the men who are directors of large institutions for the care of epileptics where opportunity for observation and treatment of vast numbers of patients is afforded. Those who condemn as worthless or harmful the bromide treatment are apt to be those who have discovered marvelous new remedies which relegate all others to oblivion.

I shall abstract some of the more important articles, commenting on them as I go, and taking up those first which consider the etiology. It is not to be supposed that this is a complete review of the literature. Some very important papers have no doubt been overlooked, and I can certify that I have read a number that hardly paid for the time of looking them through.

H. Aimé cites the following passage from A. Leroy (Paris Medical, June 2, 1913): "Asthma and epilepsy are probably two manifestations of the same disease. Certain albuminoid products of the placenta, the thyroid, the ovary, testicle, etc., or of globulins set free by syphilis, peptones, albumoses, amino acids, etc., escaping the action of a defective liver, and coming from a sluggish intestine, get into the blood, whose osmotic tension they raise. They run toward the emunctories, and these failing, toward the dialyzing membranes of the economy, the pia and the choroid plexus. Here the phenomenon of the spasm is engendered. When the kidneys finally act, the crisis is over. If the tendency of the poisons is toward the alveolæ, an asthmatic attack results instead." This would be a convenient theory with which to account for those allied manifestations, puerperal eclampsia, and uraemia.

Aimé remarks that haemophiliacs are said never to become epileptics and says this is possibly attributable to the delayed coagulation time of the blood, but Thom (Epilepsia, June, 1915) says that epilepsy is not unknown among haemophiliacs, and that the coagulation time was normal in 92% of 203 cases examined by him.

G. Bolten in a careful article mentions Bra's neurococcus, to which I shall refer later. He refers to the work of Bratz, who found glia proliferation in only one-half of his cases and sclerosis of the cornu ammonis in a like percentage. Donath thought

* Read before the Sacramento Society for Medical Improvement July 18, 1916.

choline the cause of the disease. Bodily fluids of epileptics, according to Bolten, are very toxic to animals when injected. This is of course not new; I remember Voisin as far back as 1896 speaking of the extra toxicity of the urine of epileptics. Bolten regards epilepsy as consisting of a large number of conditions, the fit being merely the most striking symptom. He proposes the following classification of the epilepsies:

1st—Cerebral (secondary or symptomatic), a result of chronic meningitis or encephalitis, traumatisms of cranium, hydrocephalus internus, tumor, lues, etc.

2d—Epilepsy from endogenous intoxication, diabetes or uraemia.

3d—Epil. from exogenous intox., alcohol, absinth, tobacco.

4th—Affective epilepsy of neuropaths.

5th—Cardiogenic E. (Stokes-Adams).

6th—Epilepsia tarda.

7th—Essential epilepsy.

Bolten regards genuine or essential epilepsy as due to hypo function of the para-thyroids and a hypo intestinal fermentation.

One is somewhat astonished to learn from Ulrich that Ammon says that 62% of all epileptics die directly from the disease and that 42% die in an attack.

Hartmann and di Gaspero comment on the fact that while epilepsy has been recognized and described since the days of Hippocrates, it is only of late that it has been discovered that the fit is not essential to epilepsy, but in the next breath they tell you that one can never be certain of the disease without the fit. Epilepsy without the spasm certainly sounds like a lucus a non lucendo. H. and di G. lay stress on the variousness of pathological conditions which may produce the symptom of the fit, and stigmatize essential epilepsy as epilepsy without known cause. There must be underlying all cases of epilepsy, genuine, traumatic and other, some condition which makes this sort of manifestation possible. A sort of epileptogenic state, as if there were within the tissues an epilepsigen which needed only a final touch of one sort or another to make it active. Incidentally they show a chart accurately kept for over four years, showing that the number and severity of the attacks have nothing to do with the phases of the moon.

The census of middle Europe shows one epileptic to 1000 of population. Trousseau is quoted by H. and di G. as saying that no disease is so frequently mistaken as epilepsy. An occasional experience leads me to believe that there is some truth in this. Not only is epilepsy not recognized as epilepsy but other diseases are diagnosed as epilepsy.

Mention was made above of the neurococcus announced by Bra in Comptes Rendus Ac. d. Sc., Jan. 2, 1902. C. A. L. Reed of Cincinnati has caused a stir lately by confirming and amplifying the work of Bra and has made some very strong claims for his surgical methods in the treatment of epilepsy. Reed says that 100% of his cases are markedly constipated (I have not found out just how many cases he has had) and that several stools a day do not mean that there may not be a great mass of feces still in the colon that never cleared away. This he has found out by the fluoroscope. The only case that I have examined thus, a marked case of grand mal, emptied the colon completely and in less than normal time. Reed found the bismuth meal to stay for 60 hours or more. This stasis is supposed to cause an unusual fermentation and putrefaction with the growth of bacterial products, which upon absorption cause toxaemia. This he says causes a persistent acidosis, but he does not show to my satisfaction how he arrives at this conclusion. The saliva is acid in 100% of his epileptics; urine and sweat highly acid. This acidosis (nothing said of any determination of H ions in the blood) causes an edema of the type described by Martin Fisher—when this edema goes to a sufficient degree in the cerebral tissues there is a fit. No explanation is given as to why the fit ceases.

Bra found a coccus, in 70 of 100 cases, in the blood. He found it only in epileptics, and only before and after the fit. In the intervals the blood was sterile. Cultures injected into rabbits produced typical fits. Reed finds this organism in the blood, also in the caecum and in the appendix. Reed's latest paper describes the organism as a spore bearing bacillus. His conclusions are that:

1st—Epilepsy is caused by a specific infection, probably by a bacillus of the gas forming series.

2d—The infection is in the intestinal canal, probably first in the duodenum, but later in the caecum.

3d—The infection is made effective by constipation.

4th—Relief of constipation by operation cures epilepsy.

5th—Autogenous vaccine is a rational treatment.

Dr. Seavey has made numerous cultures of the urine in epileptics, before and after the attack, and has isolated a coccus apparently like Bra's. It runs to chains as a rule. She has lately isolated it from the blood of a patient whose urine was also full of the same growth.

Bra's work remained unnoticed for years and has received little confirmation yet. Still it was sixteen years that Mendel's work was ignored. It ought not to take very long to see if these findings of Bra and Reed are on a firm foundation.

Treatment: Aimé, who likens epilepsy to asthma, was impressed with the fact that a treatment he had used for the asthmatic was also very beneficial to certain epileptics. This treatment consisted in injections of sodium nitrate and caffeine.

Abregia and Urechia used intraspinal injections of 2% calcium chloride to the amount of 10 cc. The bromide of calcium was used in the same concentration and seemed preferable to the chloride. In all 86 patients were treated. Reactions: a—somnolence or sleep for 6 to 10 hours in a few cases; b—loss of tendon reflexes and paresis for 5 to 20 hours in the majority of cases; c—temperature of 38° to 39° C. for as long as 30 hours.

H. French says that biborate of soda in doses of 10 grains t. i. d. will often act wonderfully where the bromides have failed.

A. Gordan withdraws the spinal fluid from one

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(1st District. Term expires 1918)

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of modern opinion is fairly well united on the method of treatment of idiopathic epilepsy. First, sodium chloride should be reduced to the amount of about 2 g. a day. The chlorine ions are then to be replaced by bromine ions so that at the height of the treatment about ⅓ of the body chlorine is replaced. The storage place is the blood serum: The amount of bromide required will be from 3 to 6 g. daily. Binzwanger says that 4 g. is the optimum. This bromide treatment should be kept up indefinitely and with few or no remissions. The diet should be strictly ordered and adherence to it should be insisted upon. The occasional success of the advertising quacks is due to the fact that their nostrums contain an average dose of bromide which they insist upon the patient taking continuously—one frequently sees patients who have taken the medicine of Dr. X, which they get by mail or express, for months and years without interruption. The steady, moderate medication achieves results.

Other drugs such as luminal, chloral, paraldehyde, atropin, sodium borate, etc., may be used as adjuvants or occasional substitutes.

Syphilitics should have arsenic, mercury, and iodides.

Surgery is of benefit in selected cases, but no case surgically treated should be regarded as cured until several years have elapsed, and it is well not to stop the use of bromides. Remember that surgery may aggravate instead of curing, by leaving worse scars and adhesions than the original.

Serum treatment has not yet proved its efficacy, and the claims of Bra and the later elaboration of them by Reed require confirmation.

ROENTGEN TREATMENT OF LOCALIZED PYOGENIC INFECTIONS WITH REPORT OF EIGHT CASES.*

By HOWARD E. RUGGLES, M. D., San Francisco.

In view of the remarkable results of Roentgen therapy in cases of tuberculous cervical adenitis, the question has arisen as to what effect would be produced by similar treatment of localized pyogenic infections.

A brief survey of the literature impresses one with the fact that most writers agree with Pancoast (1) who discusses the subject thusly: "In the case of pyogenic organisms the stimulative or even inflammatory reaction which is unfavorable to the life of the tubercle bacillus may in reality prove favorable to the vitality and stimulate the activity of the former." It has been the belief of many that in the case of tuberculous lesions, the bacillus is destroyed or rendered inactive indirectly, through the reaction induced in the tissues by radiation. The experiments upon which this statement is based were performed before the advent of the Coolidge tube. Since this improved tube has changed Roentgen therapy to a considerable extent, the pathologic and Roentgen laboratories of St. Luke's Hospital, with the kind cooperation of Dr. H. E. Foster of the Cutter laboratories, are endeavoring to determine the effect of direct radiation upon cultural growths of various organisms.

Three months ago, Dunham (2) of Cincinnati reported the results of the treatment of sixty-seven cases of carbuncles by means of the Coolidge tube. The only earlier work upon this subject is that of Coyle (3) whose results with the older methods compare favorably with those obtained by Dunham. The latter's comments are worthy of note. He concludes that "apparently it is the streptococcic infections that receive the most benefit." Furthermore, he states that "nothing in all Roentgen therapy gives such positive and uniformly perfect results as the treatment of carbuncles." Stimulated by such an optimistic report, we, at St. Luke's, have instituted similar treatment in eight cases of localized pyogenic infection. The report of each of these cases follows:

Case 1—Carbuncle: 5 cm. in diameter, 5 days duration, pain, redness, swelling, discharge. One treatment of therapeutic dose. Result: No change for 48 hours, then pain ceased, followed by profuse discharge; in two weeks small crust remaining.

Case 2—Carbuncle: 4 cm. in diameter, 3 days duration, swelling, pain, no discharge. One treatment; pain ceased in 24 hours, followed by moderate discharge, with complete cure in ten days.

Case 3—Chronic Induration: 6 cm. in diameter, following carbuncle, duration one month, slight pain and discomfort, no discharge. One treatment of therapeutic dose, marked improvement, not complete. Repeated with one-half therapeutic dose; complete cure in two weeks.

Cases 4 and 5—Furuncles: 3 cm. in diameter, 4 days duration, pain, no discharge. One treatment: Relieved of pain in 24 hours, no discharge following; complete cure in one week.

Cases 6 and 7—Folliculitis: Duration indefinite; postules appearing in crops of 4 to 8 every two or three weeks. One treatment, full therapeutic dose. After removing existing infected hair follicles, has had no return of trouble.

Case 8—Paronychia: Duration three days, following infection, pain, swelling, redness, no discharge. One treatment: Relieved of pain in 18 hours, followed by slight discharge. Result: Cured in four days.

* Read before the San Francisco County Medical Society September 19, 1916.

* From the Roentgen laboratory of St. Luke's Hospital.

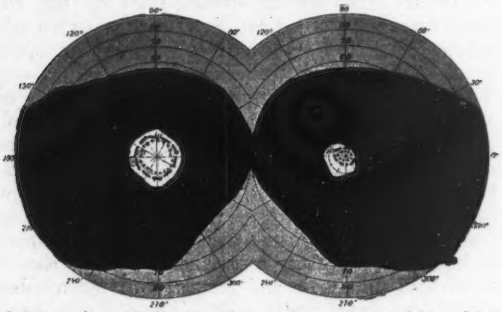
1. Pancoast: Practical Treatment, Musser and Kelley.
2. Dunham, K.: American Journal of Roentgenology, Vol. 3, No. 5, page 259, 1916.
3. Coyle, H. E.: Medical Electrology and Radiology, Vol. 7, page 139, 1906.

SUPPLEMENTARY NOTE TO THE ARTICLE ON "BLINDNESS FOLLOWING INJURIES TO THE BACK OF THE HEAD."*

By LEO NEWMARK, M. D., San Francisco.

In the paper named in the heading, the prognosis of the blindness which has been observed after injuries to the back of the head was considered, three cases being adduced, one from the literature and two from personal observation. In one of the personal cases the patient was a child, four years of age at the time of the accident. He seemed to be blind for about six months. At the time of the report, a year and eight months after the injury, he could see: "how much, it has not yet been possible to determine accurately, for he can not be induced to fix his gaze with sufficient steadiness to make a perimetric register possible." His central vision was evidently good, but it was thought that the field was greatly constricted.

Since then the boy has grown in understanding, and Dr. W. S. Franklin was able to map out the



fields; the diagrams show them for white, blue and red, in the order mentioned. The optic discs look just as they did in 1914: they are pale, the right paler than the left, but the vessels are not narrow. Central vision is 20/30 in the right eye, 20/20 in the left.

This is the condition four years after the injury.

TWO FREAK ACCIDENTS DURING TONSILLECTOMIES.*

H. S. MOORE, M. D., San Francisco.

Case 1. A well-developed boy of 20. An unusually large mouth. He was operated upon for chronic tonsillitis. After finishing the operation on removing the Sewall gag, the patient gasped and the tongue of the gag slipped down his throat, lodging between the cords in the larynx. It gave me a bad half moment but after several attempts was able to grasp it between the tips of my fore and middle finger and bring it to light. There were no after effects.

Case 2. Well-nourished girl of 19, a T. B., who had been built up for a badly needed tonsillectomy. She had never had a pulmonary hemorrhage. She took the anesthetic badly as all T. B.s do. After the uneventful removal of the left tonsil, with the cavity perfectly dry, I shifted the gag preparatory to operate upon the other side, when she gave a cough and her mouth filled up with bright red blood. I sponged rapidly and after a few moments the hemorrhage ceased. In the meanwhile the character of the bright frothy blood had told me what had happened and I quickly enucleated the other tonsil and put the patient to bed. She had one more slight hemorrhage the next morning. Since that time two months after operation she has not had another and her general condition has greatly improved.

* In the California State Journal of Medicine, May, 1914.

* Department of Medicine, Stanford University.

STATUS AND STANDARDS OF DISPENSARY PRACTICE.

It is admittedly true that in the development of the present-day hospital system the growth in size and departments of the out-patient departments has been faster than their growth in efficient methods of practice and administration. There is no doubt that the out-patient department and dispensary have come to stay and that the growing demand for their services will lead to still greater development and extension in the near future. There is reason for believing that the dispensary will come to be one of the chief agents in public health and preventive medicine propaganda. It has been recognized of course as a feeder for the hospital. But equally or even more important is its function in following up post-hospital cases both for treatment and for data on end-results. A specialized feature of dispensary practice is its application to preventive medicine. This is exemplified in the infants' milk stations and children's clinics, the tuberculosis clinics and the social service features which are coming into increasing prominence. The dispensary system is being utilized to good advantage too by industrial concerns both for treatment and for prevention.

In spite of the recognized importance of the dispensary in organized medical work, and of the tremendous impetus in the last few years of the systemization of the hospital system, in the interests of economy and efficiency, the dispensary has been grossly neglected, and its real possibilities and obligations have been slighted. It has remained for the American Hospital Association to institute definite steps toward remedying the present deficiencies. The report of the Committee on Out-patient Service of that association (Read at 16th annual conference of Amer. Hosp. Assoc., at St. Paul., Aug. 25-28, 1914. Reported in *Modern Hospital,* Jan., 1915,) embodies the first available general study of the dispensary situation, and formulates a tentative program for improvement.

The total number of dispensaries in the United States is estimated at 760, of which 400 are general dispensaries, 300 are for tuberculosis only, and 60 are restricted to specialties. Nearly 200 more are devoted to preventive work among babies. There are an indefinite number, too, on a private basis, school clinics, of which most are dental, and commercial clinics, not always ethically conducted. The total of 760 is seven times as great as in 1900. Only ten states have no dispensary at all.

Of the 400 general dispensaries, 75% are in cities of more than 100,000 population; 15% are in cities of between 20,000 and 100,000, and 10% are in towns under 10,000. A significant feature is the recent growth of the dispensary system in the smaller towns and cities.

Of the 400 general dispensaries, about 250, or 62.5%, are out-patient departments of hospitals, and the balance are independent of hospitals. Data could be obtained from but 160 of the 400, and of these 118 were out-patient departments of hospitals. In answer to a question on their organization, 24 of these 118 out-patient departments reported that the clinical medical staff exercised all administrative as well as professional authority. In 11 a clerk or janitor was provided to assign patients and direct employees. In 44 the superintendent of the hospital appointed a representative to discharge these functions. In five of these 44 cases, this representative was changed frequently, and in a large proportion of the remaining 39 the representative is a house officer or nurse with other duties and with no responsibility except for the daily routine. Few indeed had taken the first step toward good organization by placing in charge of the out-patient department a trained officer with due authority. A complicated dispensary receiving several hundred patients daily requires a superintendent in the interest of efficiency and economy just as much as does a hospital. This same criticism holds in effect with the independent dispensaries.

It is stated truly that as a "necessary consequence of inadequate organization, dispensaries have loosely administered admission systems: the routine of transfer of patients for consultation is not worked out: record systems are lax: and perhaps more important than all, the problems and needs of the dispensary are thought out by no one and are not adequately presented to the responsible authorities."

Investigation of dispensary costs was hampered by lack of exact statistics in most cases. A cost accounting system and itemization of different administrative units of the clinic, with a carefully prepared budget, are certainly as necessary in the dispensary as in the hospital or the commercial concern. The unit adopted by the committee of the American Hospital Association was the average cost per patient per visit, but no average figures could be obtained with any reliability. The estimated cost per patient per visit in the out-patient departments ranged from six to sixty-eight cents. The conclusion is drawn that a cost per visit of less than 20 to 25 cents indicates either too low a standard of service or an imperfect system of cost accounting. Fifty to sixty cents can not be considered unjustifiably high. In discussing the cost per visit, as a unit, attention is called to the fact that this unit depends on the two factors of amount of money expended, and the number of visits of patients. With too little money, proper clinical work can not be done. With too many patients for the facilities provided, the standard will also fall.

The report emphasizes the importance of laboratory facilities in the dispensary. Of about 160 institutions answering this question, from 83 to 89% had facilities for examination of urine, blood, sputum, throat and vaginal smears, 67% provided for Wassermann reactions, and 71% for X-ray work. This is an encouraging report, but on turning to the utilization of these facilities by the medical staff, the condition is not found so pleasing. The pertinent query is made, "Are we to be satisfied with medical practice which has a laboratory within its reach, but does not use it?" The remedy is to have an acceptable minimum standard and then to live up to it.

Sixty-eight out of 149 institutions reported a social service department; 68 had none, and 13 did not answer. Stress is justly laid on the percentage of patients paying but one visit even though needing further medical attention. In dispensaries of high standing this percentage is found to vary from 30 to 75%. This represents a large element of waste and inefficiency.

On the basis of its investigations so far, the committee on Out-patient Service suggests certain minimal standards which it believes should apply to most dispensaries, including all the large ones. These are worth repeating. 1. There should be a central administrative authority in control. 2. There should be at least one salaried full-time registrar for clerical and statistical work. 3. Statistics should include the following points: New patients in each department; total visits paid by new and old patients together for each department and for the dispensary as a whole; patients should be divided into male and female with the number of children stated under each. The age considered as childhood should be recorded. 4. There should be a central alphabetical card index giving at least name, age, and address for identification. 5. There should be suitable facilities for isolation of contagious suspects. 6. Every patient in the medical departments should receive a general physical examination as a routine. 7. Laboratory facilities should be provided for at least urine, blood, the simpler bacteriological tests, and for Wassermann reactions. 8. Cystoscopic facilities should be provided in the gynecologic and genito-urinary clinics. 9. An X-ray department is essential. 10. A woman attendant should always be present at the examination of females requiring exposure of the body. 11. There should be some organized social service work. 12. Accounts of out-patient departments should be kept separate from hospital accounts. 13. A system of fees for patients is desirable not only as a financial measure, but for its reaction on the patients, and its stimulus to good administration. 14. A central registry book should be provided for each member of the medical staff to record his hours of arrival and departure at each clinic.

The Committee on Out-patient Service of the American Hospital Association has taken up an important problem and one that has suffered from neglect. The standardization of dispensary and out-patient practice can only be based on thorough studies of present conditions and needs. Such standardization is necessary and the minimal requirements noted above are to be commended.

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Ventura County—Dr. D. W. Mott, Dr. C. A. Jensen, Dr. B. E. Merrill, Dr. H. B. Osborn.

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Committee on State Industrial Accident Laws.

Los Angeles County—Dr. Wm. R. Moloney, chairman; Dr. E. H. Southworth and Dr. C. P. Thomas.

SOCIETY REPORTS

ALAMEDA COUNTY.

The following meetings were held during the month of October:

October 3rd.

Dr. Bowles, chairman.

I. Etiology of Kidney Infections.
Dr. W. H. Strietmann.

II. Diagnosis of Kidney Infections.
Dr. A. M. Meads.

III. Theatment of Kidney Infections.
Dr. Thos. J. Clark.

IV. Typhus Fever.
Dr. J. C. Geiger.

October 17th. Regular Monthly Meeting.

I. The Operative Improvement of Defective Hip Joints.
Dr. J. T. Watkins.

II. The Effects of the Dithermal Current in the Treatment of Cases of Diminished Hearing.
Dr. John E. Adams.

October 24th.

Dr. Wills, chairman.

This meeting was held at the County Hospital and was preceded by a dinner at the hospital after which cases were shown by Drs. Bowles, Von Adelung, T. J. Clark and Ball.

About sixty members took advantage of Dr. Wills' hospitality.

October 31st.

Dr. Wythe, chairman.

The program consisted of a series of moving pictures of the Smith-Indian Cataract Operation presented by Dr. A. S. Green of San Francisco under the following headings:

I. Moving Picture Scenes of India.
II. Colonel Smith Operating.
III. Intra-capsular Cataract Operation in Detail.

E. E. BRINCKERHOFF, Secretary.

LOS ANGELES COUNTY.

Regular meeting of the Eye and Ear Section, Los Angeles County Medical Association, met at the office of Dr. J. J. Kyle, 702 Title Insurance and Trust Bldg., Los Angeles, California, October 2, 1916.

Attendance—Drs. Bullard, Brown, Detling, Dudley, Griffith, Graham, Kyle, Leffler, Lund, G. W. McCoy, R. A. Miller, Old, F. L. Rogers, Reed, Stivers, Swetnam, Tholen, Kiefer, Kelsey, Mills, Kress.

Visitors—Drs. Jesberg, Hosmer of San Diego, Graham of Fresno, Edgerton of Pomona, Vallee of New York, Graner of Idaho, Davies of Los Angeles.

The minutes of previous meeting read and approved. Dr. J. J. Kyle read his paper entitled "Epidemic Sinus Infection."

Discussion of Dr. Kyle's Paper.

Dr. Detling—Have done no bacteriological work in sinus infection. It is a big field. So-called infection of colds has been tackled but we have not gone very far. Would like to hear more of the operative treatment.

Dr. J. M. Brown—An excellent paper. Have done no bacteriological work. Dr. Gorden Wilson says: "Every chronic sinus has its pathological changes." Japanese have seemed to have much sinus infection. My treatment, for all sinuses, is never to puncture acute cases, if there is drainage. Where there is some lesion causing damming up of secretion, I puncture. In ordinary cases I use one-half of one per cent. cocain and shrink down in my office. Give patient same solution and instructions to use it every half hour in nose. Eighty per cent. get well after two weeks of above washing with salt and soda solution (soda to cleanse better), some add $H_2 O_2$—to clean. If washings for ten days show no tendency to clear up, I do a modified Krause operation, wash out under inferior turbinate. Then in a couple of weeks, if no result, do a complete Krause. I never operate on acute or sub-acute ethmoid or frontal. Shrink down and wash out and if not successful take off a small piece of middle-turbinate and wash out.

Dr. Griffith—I transilluminate and puncture, use normal saline and soda. Clear up acute cases in three or four washings. Chronic cases last years when treated by dentists. Cases clear up but if not, use Coakley irrigation, go in under lower turbinate and wash out. Ethmoid, I treat same as previous speaker does. I use Mosher method—good results. If chonic I do more radical work.

Dr. Dudley—Most of us seldom get a case unless it is 24 to 72 hours old, thinking they have a cold, neuralgia, etc. I keep case clean, shrink down—two quarts of solution every other day. Cases get well in a few days unless some constitutional condition. I always puncture if I do not get results.

Dr. Vallee of New York—Much pleasure in being here tonight and profit from paper and discussion. In cases of acute boggy condition do not operate—if you do trouble appears. Our best results are found in internal work in the nose. Where septa exist more radical and extensive surgical work must be done. Personally, I do not favor the Killian operation, it is in a dangerous location and opens up a new cavity, the orbit, and seems to me unnecessary. Decongest the nose first, use cocain strong, get drainage, if no re-

sults as to drainage remove some of the middle turbinate, some cells opened, open the bulla—post and ant. cells—and processus uncinarius. Good tool is a rasp. In maxillary sinus work, I would not be as conservative as Dr. Brown. Puncture helps diagnosis. Use argyrol 40 per cent. in the sinus, from coast to coast we are doing it generally. In sphenoid sinus, remove the middle turbinate and get into sphenoid. Some men use zinc chloride solution, 40 per cent. argyrol on pledgets and shoved into superior meatus and leave it there. In boggy condition throughout nose, use inert powder, which rolls up germs as in a blanket.

Dr. Hosmer—Thanks for invitation but turn cases over to a rhinologist.

Dr. Jesberg—Quick evacuation of pus and free drainage will prevent chronic sinus cases, first thing to deal with is the swollen membrane. Weak solution of antipyrin 5% to 10% sprayed in nose after engorgement is less.

Dr. Kieffer—Have had many cases of infection of sinuses in Japanese. Want light on diagnosis of ethmoiditis and sphenoiditis. Am against the sacrificing of turbinate bones.

Dr. Lund—Mentioned puncture of sphenoid close up to septum.

Dr. McCoy—One trouble is if there is no sphenoid you will puncture the brain.

Dr. R. W. Miller—Sod. salts are good solvents of mucus. For fetor permanganate potass. Suction is useful in all cases. Has not been mentioned here, but is useful in ethmoid and sphenoid.

Dr. Old—Bacteriology is very important—can be too conservative in these old cases of sinus infection.

Dr. Rogers of Long Beach—I lean to view of being largely mechanical and in spite of the fact there is a bacteriological side. My experience has not been very encouraging as to vaccines. Is there anything more permanent in its action than cocain solution?

Dr. Mills—I have had experience in cases of bullet wounds, entering maxillary sinus. Labarraques' solution promptly cleans up cases. It is a one-half of one per cent. solution of hypochlorous acid and has been used in general surgery (Dakins solutions). Its uses in ear, nose and throat should be investigated.

Dr. Kelsey—General consensus is to follow along similar lines. In pain in maxillary regions remember tooth bulbs project into sinus and pain from that cause is common from infraorbital nerve. Use argyrol freely, flushing the nose, effect continues for hours, use hot solution in large amounts.

Dr. Swetnam—Wish Dr. Kyle to define more closely, acute, sub-acute and chronic sinus.

Dr. Kyle (closing)—Acute coryza case is suggestive of sinus involvement. Sub-acute don't have much temperature but there is pain, severe, and dropping in the throat. This means ethmoid or sphenoid. X-Rays are useful. Hard to locate cause of pain. Adrenalin, camphor, boric acid, equal parts, dropped in nose will do away with stuffiness. I believe if you have free drainage you will never have sinus infection. Condition is mechanical. Transillumination is first required—then follows bacteriological side.

New Business.

The joint meeting with the County Medical Association, moved by Dr. Kress, seconded by Dr. Bullard, a committee be appointed to prepare the program.

Dr. Brown moved an amendment that the Executive Committee be allowed to act. Dr. Kress accepted the amendment. A vote on the amendment carried.

Cases Shown, Dr. Stivers, First Case—Tertiary syphilis. Mexican, large sloughing ulcer in nasopharynx. Wassermann 4+.

Second Case—Shoe button removed from nose of child three years old. The button had been in the nose for three weeks. General anesthesia was necessary, and button removed by ethmoid spoon.

Dr. Detling—Basal fracture, free flow serosanguineous from the ear, some weeks later found the patient totally deaf. Paralysis of sixth, seventh, and eighth nerves. Prognosis: Five months since injury, now facial paralysis cured, hearing returned considerably, hears over phone.

Dr. Harris—Carpenter, age 57. In 1914 was struck by team of horses. Fracture of right shoulder blade and two ribs. Ten days unconscious and in bed for thirty-four days. Vision now as good as eighteen months ago. Osteopathist did trephining operation for blood clot on left side. Cannot open left eye since operation. Three fingers can be pushed into scar and feel middle meningeal artery. Irregular pulse. Systolic 118. Diastolic below 100. Legs paralyzed four months. County Hospital made Wassermann 4+ positive.

Dr. G. W. McCoy—Some sinus cases won't get well, especially when sequestra lie in sinuses. This case had pus, radical frontal operation was done, whole superior plate and arch necrosed all away, no sphenoid cells found.

Dr. Rogers of Long Beach—Showed instrument for heat treatment of corneal ulcers. Shortens time of treatment.

MENDOCINO COUNTY.

At the call of the President, Dr. L. C. Gregory, a meeting was held on October 28th, at the residence of Dr. Frank C. Peirsol of Mendocino. Eleven members were present, including the President and Secretary. As special guests, to honor our meeting, we had the Northwestern Pacific Railroad Surgeons' Association, and Drs. Paul S. Campiche and Sol. Hyman of San Francisco.

The guests arrived on a special car at Fort Bragg, where they were met by Drs. Campbell and Wolfe as well as by the President and Secretary. From there the trip to Mendocino was made by auto. Upon arriving in Mendocino we were the guests of the apple show; the show was certainly a fine one of its kind.

At the meeting, Dr. A. Miles Taylor of the Northwestern Pacific Railroad Surgeons' Association, honored our Society by occupying the chair. Supper started the proceedings. At this supper—of the finest one could sit down to—the abalones and quail, in themselves, would have been a sufficient reward for a long trip, not to speak of the rest of the menu. The partakers certainly enjoyed this hospitality and extend their thanks to the hosts, Drs. F. C. Peirsol and H. H. Wolfe. After the ice-cream had been consumed, Dr. Paul S. Campiche read an excellent and instructive paper on: "Technic, Practical Application and Limitations of Local Anesthesia." This was discussed by Drs. Stanley, Campbell, Gregory, Baker, Peirsol, Kuser, Lux, Abrahms, Hyman and A. Miles Taylor, Dr. Campiche closing the discussion. This was followed by a paper, or rather a talk—in fact, it was a fine lecture—"On the Treatment of Certain Very Painful Afflictions: Painful Feet, Pain in the Back, Sciatica, and Trifacial Neuralgia" by Dr. Sol. Hyman. Discussed by Drs. Abrahms, Stanley, Lux, Huntley, Peirsol, Kuser, Sawyer and A. Miles Taylor. After every one present had inspected the exhibits brought by Dr. Hyman, he closed the discussion.

On motion of Dr. Bogle the Northwestern Pacific Railroad Surgeons' Association extended its vote of thanks to the Mendocino County Medical Society.

Dr. George W. Stout, on behalf of Dr. R. L. Richards, Superintendent of the State Hospital at Talmage, extended an offer to assist, at any time, any of the individual members of the Society in their diagnosis, care and treatment of early cases of dementia, thus perhaps, saving those on the borderline from becoming insane. Dr. Stout also extended to our guests, the Northwestern Pacific Railroad Surgeons' Association, Dr. Richards' offer to prepare and to read a paper at a meeting of the Association, which offer was accepted with thanks.

Dr. A. Miles Taylor extended an invitation to our members to attend the meeting of the Northwestern Pacific Railroad Surgeons' Association, to be held at Santa Rosa, or to any other meeting at any other place that might be convenient or accessible.

As Dr. Taylor was closing the meeting, it was announced that Dr. F. McLean Campbell extended an invitation to see Dr. A. Miles Taylor operate on several patients at a clinic to be held at the Fort Bragg Hospital the following morning.

After the clinic, Dr. Campbell entertained at a banquet in the Hotel Windsor.

At 1 p. m. the special started on its return trip. I do hope that each one on that special departed satisfied both in mind and body. That same wish is extended to everyone who took part in this meeting of the Mendocino County Medical Society. OSWALD H. BECKMAN, Secretary.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the Chamber of Commerce Friday evening, October 27. About sixty people were in attendance, there being present in addition to a representative number of members quite a few nurses from the different training schools and several representatives from the local Red Cross Society. Because of the presence of the invited guests, the regular order of business was dispensed with and in the absence of the President, the Secretary introduced the speaker of the evening, Dr. William Palmer Lucas, Professor of Pediatrics in the University of California.

Dr. Lucas selected for his subject "Some Results of Two Years of Feeding Belgium from the Medical Standpoint," especially as regards the children. As Dr. Lucas had personally spent several months during the recent summer investigating the problems of feeding the Belgian children under the supervision of Mr. Herbert Hoover of the American Commission, he was in a position to speak both with authority and with interest, illustrating many points in his address by the use of projection pictures, which he had taken personally in many cases during his travels in the war zone.

DEWEY R. POWELL, Secretary.

SANTA BARBARA COUNTY.

Report of joint meeting of Santa Barbara and Ventura County Medical Societies, held at the Arlington Hotel, Santa Barbara, Cal., November 13.

In honor of the joint meeting a banquet was served at the Arlington Hotel at 7 p. m. Both the banquet and scientific proceedings which followed, were marked by an especially good attendance from both counties. Following the banquet, which all seemed to enjoy, the entire evening was given over to the guest of honor, Dr. Albert A. Soiland of Los Angeles, who was present upon invitation of the Society, and delivered a paper on Practical X-Ray Work, Diagnostic and Therapeutic. The talk was illustrated with a profusion of lantern slides which were intensely interesting.

After a vote of endorsement of the Tri-County Tubercular Sanitarium project for care of the counties' indigent tubercular, the meeting was adjourned.

R. MANNING CLARKE, M. D., Secretary.

MARIN COUNTY.

August Meeting—The Marin County Medical Society was the guest of Dr. J. H. Kuser, San Rafael, at Fairfax tavern, where a very enjoyable barbecue was given. Dr. S. J. Hunkin, of San Francisco, read a paper on fractures.

September Meeting—The Marin County Medical Society met at the home of Dr. O. P. Stowe, Mill Valley, Calif. Dr. H. W. Wright, of San Francisco, read a paper on the Prevention and Treatment of the More Chronic Conditions of Infantile Paralysis.

October Meeting—The Marin County Medical Society was the guest of Dr. E. W. Alexander, of San Rafael. Dr. C. N. Hoag, of San Francisco, read a paper on Nitrous-Oxide and Anoci Association in Obstetrics and Surgery.

O. P. STOWE, Secretary.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of October, 1916, the following meetings were held:

Tuesday, October 3. Section on Medicine.

Mount Zion Hospital Clinical evening.

1. Obstetrical Operations Performed at Mount Zion Hospital. R. K. Smith and L. I. Breitstein.
2. Demonstration of Patient with Brain Tumor. Wilfred Beerman.
3. Three Interesting Pulmonary Cases; Clinical Reports and X-Ray Demonstration. W. C. Voorsanger.
4. Original Instruments and Methods. Henry Meyer.
5. Multiple Fractures with Demonstration. Julius Rosenstirn.
6. Observations on a Case of Congenital Hemolytic Jaundice. Emil Schmoll.
7. (a) Bone Graft, with Illustration of Types. (b) Modified Technic for the Intramedullary Bone Splint. (c) Demonstration of Motor for Cutting Bone Grafts. Charles G. Levison.

Tuesday, October 10. General Meeting.

Get Together Meeting. Subject: Welfare of the Profession.

1. Introductory Remarks. Leo Munter.
2. Address. V. G. Vecki.
3. Address. A. S. Keenan.

Tuesday, October 17. Section on Surgery.

1. Seriograph. Description and Demonstration of the Author's Recently Perfected Apparatus for Taking Serial Radiographs of the Intestinal Tract. F. Freytag.
2. Report of Two Cases of the Stenosis of the Duodenum. P. Campiche.
3. Fractures in War Time. L. Eloesser.

Tuesday, October 24. Secton on Eye, Ear, Nose and Throat.

1. Demonstration of Case of Unilateral Labyrinthitis Following Acute Parotitis. George H. Willcutt.
2. Case Report of Meningitis of Otitic Origin. E. C. Sewall.
3. Demonstraton of Stereoscopic X-Ray Plates of Ear and Sinuses. E. G. Cambert.
4. Lantern Slides of Eye Cases. Hans Barkan.

Tuesday, October 31. Section on Urology.

1. Two Cases of Poisoning from the Use of Alypin in the Urethra. L. C. Jacobs.
2. Ureteral Calculi. G. L. Eaton.
3. Urological Diagnosis of Polycistic Kidneys. (Lantern slides.) Frank Hinman.
4. The Value of the Preservation of Urological Specimens of Pathological Interest, with Demonstrations. G. W. Hartman.

CALIFORNIA PEDIATRIC SOCIETY, NORTHERN BRANCH.

The next meeting takes place Thursday, December 7th, in the County Medical rooms. The program:

Haemorrhage Neonatorum. Report of Cases. Reginald Knight Smith.

A Consideration of the Symptoms of Appendicitis Based on a Study of One Hundred Cases. Langley Porter.

Erysipelas in the Newborn. Report of Cases. Dudley Smith.

Amyotonia Congenita. Harold K. Faber.

Ocular Defects in Mentally Retarded Children. Hans Barkan.

The Value of the Wassermann Reaction in the Newly Born. Herbert Yerington.

Election of officers.

GEORGE D. LYMAN,
Secretary and Treasurer.

LANE LECTURES.

The Thirty-fifth Course of Popular Medical Lectures will be given at Lane Hall (on the north side of Sacramento street, near Webster) on alternate Friday evenings in January, February and March, 1917, at 8 p. m. sharp. The dates of the lectures will be January 12, 26, February 9, 23, March 9, 23.

The following tentative program has been arranged:

1. Lecture by Dr. Frank W. Lynch, Professor of Obstetrics and Gynecology, University of California; subject to be announced.
2. Lecture by a member of the U. S. Army Medical Corps, on "Typhoid and Smallpox Vaccination among the Troops at the Mexican Border."
3. Lecture by Dr. W. C. Hassler, Health Officer, on "Poliomyelitis."
4. Lecture on "Postural Deformities," by Dr. H. L. Langnecker.
5. Lecture on "Cancer," by Dr. Harry M. Sherman.
6. Lecture on "Prevention of Blindness," by Dr. Hans Barkan.

The lectures are free and all are more than welcome to attend any or all of the course.

REPORT OF THE NOVEMBER MEETING OF THE STATE BOARD OF HEALTH.

The regular meeting of the State Board of Health was held in Sacramento on November 4, 1916. There were present Doctors George E. Ebright, F. F. Gundrum, Edward F. Glaser, Robert A. Peers and W. A. Sawyer.

A communication from Dr. Lela J. Beebe, State Chairman of the Department of Legislation of the California Federation of Women's Clubs, announced that the Federation, through its Executive Board, endorsed the proposed bill providing for the division of the State into six health districts under the State Board of Health, and for the appointment of State District Health Officers and State Sanitary Inspectors.

In response to a communication, the Board expressed the opinion that the regulation of the depth of graves had best remain subject to local rather than State regulation.

The city clerk of a California city was given opportunity to appear before the Board and show cause why he should not be prosecuted for violating the State Registration Act by delaying in transmitting birth and death reports. On receiving assurances that he would observe the law strictly, the case was dismissed with a warning that any repetition of the offense would be followed by prosecution.

Regulations for the prevention of typhus fever in railroad camps were adopted.

A request was received that the rabies quarantine in Lassen County be modified or terminated. An immeidate investigation of conditions was ordered with a view to determining whether such action would be justified.

Charges that a certain physician had concealed a case of scarlet fever were dismissed, as the evidence showed that he had reported the case to the health officer as suspected scarlet fever in ample time for precautions to be taken by the health officer.

The resignation of Professor Charles Gilman Hyde as Consulting Engineer was accepted and the thanks of the Board were extended to Professor Hyde for the years of service which he had devoted to the engineering work of the Board, and also for his successful efforts in establishing and developing an efficient bureau of sanitary engineering.

A report was received from the Bureau of Sanitary Engineering relative to the continued and dangerous pollution of the Merced River by concessioners in the Yosemite National Park. Instructions were given to the Secretary to take the matter up with the Department of the Interior and to proceed against the individual concessioners under the State stream pollution laws, if necessary.

In accordance with the recommendation of the Director of the Bureau of Sanitary Engineering, a permit was granted to the City of Chino to dispose of its sewage by irrigation, and a temporary permit was given to the City of Los Angeles to dispose of its untreated sewage into the ocean, pending the results of the proposed bond election for the installation of Imhoff tanks. A temporary permit was given to the City of Hanford to continue to dispose of sewage on its sewer farm.

The plans of the proposed Los Angeles Tuberculosis Hospital were discussed. The floor plan and the modified plan for the roof and the drainage system of the grounds were approved. The Board held that certain expenditures were not justified, as they could better be made for increasing the bed capacity.

Three applications for certificates as Registered Nurse were granted on the recommendation of the Director of the Bureau of Registration of Nurses.

On the recommendation of the Director of the Bureau of Foods and Drugs, licenses to operate cold storage warehouses were granted.

Consideration was then given to numerous cases of alleged violations of the Pure Foods and Drugs Act, and hearings were held as provided by law.

W. A. SAWYER, Secretary.

BOOK REVIEWS

A Text-Book of Pathology. By William G. MacCallum, M. D., Professor of Pathology in the College of Physicians and Surgeons, Columbia University, New York City. Octavo volume of 1085 pages with 575 original illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $7.50 net.

It is indeed a pleasure to read a book, and especially a text-book, on pathology written in the style in which this book appears.

In his preface the author says that it is not intended as a book of reference. This immediately does away with the one adverse criticism that can be offered as one goes through the work. It is not complete, i. e., it is not a dictionary of pathological conditions, but it is far more valuable as it is, for in its present form it is a book that one will read, not only when one has a special point to look up, but it is a volume that every practitioner and student of medicine can take a

keen enjoyment in perusing. Instead of trying to cover every possible lesion, the author takes up types of lesions and presents them one after the other in such form that the reader grasps the fundamental facts and oftentimes a great deal more.

It is useless in a short notice to dwell on any particular chapter or chapters, as not one but all are to be recommended. The author gives a resumé of practically all that is known on the subjects, not only the generally accepted, but frequently states varying views of authors who have worked on unsettled problems. Throughout the whole book a rational balance is preserved, which is most refreshing in these days when theories and fads are so often exploited.

This book is one that every practitioner of medicine should add to his library and read frequently.

A. L. F.

Practical Massage and Corrective Exercises. By Hartvig Nissen, President of Posse Normal School of Gymnastics; Supt. of Hospital Clinics in Massage and Medical Gymnastics; for twenty-four years Lecturer and Instructor of Massage and Swedish Gymnastics at Harvard University Summer School; late Director of Physical Training at Boston and Brookline Public Schools; former Instructor of Physical Training at Johns Hopkins University and Wellesley College; former Director of the Swedish Health Institute, Washington, D. C., etc.; Author of "Swedish Movements and Massage Treatment," "Practical Massage in Twenty Lessons," "A, B, C of Swedish Educational Gymnastics," "Rational Home Gymnastics," etc. With 68 original illustrations, including several halftone plates. Philadelphia: F. A. Davis Co., publishers, 1916. Price, $1.50.

Since Arthur Guiterman has, in recent time,
Reviewed so many books in rhyme,
And set for critics a new style,
We should follow it for a while.

This little book that I review,
Is one that tells you how to do
Both exercises and massage
On patients whom you have in charge.

In telling HOW, 'tis very good,
In telling WHY, be it understood,
It does not always do as well,
(The only fault on which I'll dwell).

The reason that the WHY is not
So good, is that there is a lot
Of statements that could not be proved.
(We hope next time they'll be removed).

As a manual to guide the way
O'er paths where masseurs love to stray,
This little book is quite all right—
A veritable beacon light.

As a manual, let me repeat,
It is as good as e'er we meet;
But as a MANUAL peruse it,
And not for INDICATIONS use it.

A. L. F.

Painless Childbirth, Eutocia and Nitrous Oxid-Oxygen Analgesia. By Carl Henry Davis, A. B., M. D. Chicago: Forbes & Co., 1916. pp. 134. Price, $1.00.

This little book covers the field of painless childbirth in a very clear and concise manner, with an especially strong plea for better obstetric practice. After discussing the various methods of relieving pain in labor, he concludes that gas and oxygen is the best. He does not feel that complete amnesia, or loss of memory is necessary, or even desirable. Analgesia gives the relief from pain which he thinks is the main thing. Gas is also the safest of all the anesthetics used for this purpose. He enumerates the following advantages:

(1) Labor is shortened, (2) the puerperal period is shortened, (3) Nitrous-oxid-oxygen does not interfere with the supply of milk, (4) there is a reduction in the number and severity of lacerations, (5) Nitrous-oxid-oxygen is shown to be a sufficient anesthetic for the entire labor, (6) there is no increased tendency toward post-partum hemorrhage, (7) Nitrous-oxid-oxygen can be used in abnormal as well as normal cases.

The author believes that the relief from pain secured in the analgesic stage with gas is sufficient even when the head is dilating the perineum. We are inclined to doubt this, both on theoretical grounds and from practical experience. In using chloroform or ether we have found that this stage of labor can be better controlled, and tears can be avoided, if complete surgical anesthesia is secured. There seems to be an even stronger need for this when using a light anesthetic like gas.

The chief criticism of the work lies in the fact that it makes the successful use of nitrous-oxid-oxygen appear too easy. As a matter of fact, it is not easy, and the beginner should expect a certain number of unsatisfactory results before he is able to master the necessary technic.

This book should be found upon the shelf of every man interested in obstetrics.

C. L. H.

Diseases of Children. By Edwin E. Graham, M. D., Professor of Diseases of Children, Jefferson Medical College, Philadelphia; Pediatrist to the Jefferson Hospital and to the Philadelphia Hospital; Consulting Pediatrist to the Training School for Feeble-minded, Vineland, N. J.; Member of the American Pediatric Society, etc. Octavo, 902 pages, with 89 engravings and 4 plates. Cloth, $6.00 net. Lea & Febiger, Publishers, Philadelphia, and New York, 1916.

This is a concise textbook for students and general practitioners. Each subject is briefly dealt with under etiology, pathology, symptoms, diagnosis, prognosis and treatment. There are introductory chapters upon general development including statistical data upon each organic function, also chapters dealing particularly with infant mortality, heredity, congenital malformations, diseases of the newborn and about seventy pages on infant feeding and normal digestion.

The sections on treatment are much too brief and lacking in specific directions in several instances to be of much value to the general practitioner.

In the section on poliomyelitis the author advises absolute rest during the acute stage, but at the same time suggests "repeated colon irrigations and stomach lavage, hot packs and electric light baths"(!) Not enough is said as to the immobilization of weakened muscles in the subacute stage by proper apparatus to prevent their becoming fatigued or overstretched.

In the section on acute rheumatism no mention is made of the value of complete immobilization of inflamed joints.

In view of the large amount of research that has been done upon pituitary gland tumors and their frequency, more information might have been given in this book upon the diagnosis of these conditions and of brain tumors in general.

The section on laboratory tests of the spinal fluid is much too indefinite in respect to technical details such as would be welcomed by physicians who have no access to a modern laboratory.

H. W. W.

INTERESTING RELIC.

One of the last reminders of the timber days at Truckee, California, was uncovered a few days ago when workmen demolishing one of the old Truckee Lumber Company's sawmills uncovered a bell used by the vigilantes. It was used to summon the vigilantes when the leaders felt the necessity of taking the law in their own hands and exercising the prerogatives of Judge Lynch. Truckee is among the oldest towns of the state and just as it was prominent in the historic days when the Sierras' slopes gave up their gold, so it is prominent now as a summer and winter resort city. Its fishing and hunting and nearness to Lake Tahoe make it the mecca of sportsmen and pleasure-seekers during the summer months and its winter carnival, which begins about Christmas time, attracts thousands during the snow period. Preparations are already under way for the season of winter sports this year. There will be skiing, tobogganing, the ice carnival and the sleigh-rides to historic Lake Donner again this year, and the interest created by the city rinks in skating is expected to add greatly to the number of Truckee visitors.

DEPARTMENT OF PHARMACY AND CHEMISTRY.

Edited by FRED I. LACKENBACH.

(Devoted to the advancement of Pharmacy and its allied branches; to the work of the Council on Pharmacy and Chemistry of the American Medical Association, and to matters of interest bearing upon the therapeutic agents offered to the medical profession. The editor will gladly supply available information on matters coming within the scope of this Department.)

NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1916, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Barium Sulphate for Roentgen Ray Work—Barium sulphate freed from soluble barium salts. This salt passes through the system unchanged and, because of this, is used in taking Roentgen Ray pictures of the stomach and the intestines.

Barium Sulphate-Squibb for Roentgen Ray Work.—A brand complying with the standards for barium sulphate for Roentgen Ray work, N. N. R. E. R. Squibb & Sons, New York (Jour. A. M. A., October 7, 1916, p. 1091).

Chlorazene Tablets, 4.6 Gr.—Each tablet contains 4.6 grains chlorazene (sodium paratoluenesulphochloramine). The Abbott Laboratories, Chicago (Jour. A. M. A., October 21, 1916, p. 1229).

ITEMS OF INTEREST.

Hydras.—The Council on Pharmacy and Chemistry reports that Hydras, sold by John Wyeth & Brother, is one of the so-called "uterine tonics," said to contain "cramp bark, helonias root, hydrastis, scutellaria, dogwood and aromatics" in unspecified amounts. While the name, taken in connection with the composition, suggests that hydrastis is an important constituent, the A. M. A. Chemical Laboratory found this drug to be present in unimportant amounts. The Council finds Hydras inadmissible to New and Nonofficial Remedies because its composition is semi-secret; because the recommendations on the label for its use in specified diseases, and the advertising accompanying the bottle are sure to lead to its ill-advised use by the public; because the claims made for its curative properties are exaggerated and unwarranted; because the name is misleading and because the combination of these five drugs, even if individually they were of therapeutic value, is irrational (Jour. A. M. A., October 7, 1916, p. 1107).

Nuxated Iron.—Nuxated Iron is advertised in newspapers with the claim that it is not a patent medicine or secret remedy. In the popular meaning of the word, "Nuxated Iron" is just as much a "patent medicine" as is "Peruna," "Lydia Pinkham's" or "Pierce's Favorite Prescription." Also, "Nuxated Iron" is essentially secret in composition. While the public is led to believe that the preparation consists chiefly of nux vomica and iron, analyses made in the A. M. A. Chemical Laboratory and elsewhere indicate that it contains much less than an ordinary dose of iron and practically no nux vomica. It is sold under claims that are both directly and inferentially false and misleading not only as regards its composition but also as regards its alleged therapeutic effects. Nuxated Iron is also advertised in the Medical Brief, a publication which has for its editor the "medical expert" for the Wine of Cardui concern in the recent case against the American Medical Association and as its publisher one who, through the "National Druggist," has long been the mouthpiece of the "patent medicine" interests (Jour. A. M. A., October 21, 1916, p. 1244).

Patent Medicines Prosecuted Under the Food and Drugs Act.—The following information was brought out in connection with prosecutions by the federal authorities under that portion of the Food and Drugs Act which provides penalties against misleading, false and unwarranted therapeutic claims: Radway's Ready Relief was claimed to relieve rheumatism, sore throat, pleurisy, pneumonia and other conditions. The government chemists found the preparation to be a hydroalcoholic solution of oleoresin of capsicum, camphor and ammonia. Ingham's Vegetable Expectorant Nervine Pain Extractor was found to contain alcohol 86 per cent., opium alkaloids, camphor, capsicum and vegetable extractive matter. It was claimed that this morphine mixture was not only safe and harmless, but positively beneficial when given to teething children. Tetterine was said to be a marvelous remedy for tetter, eczema, etc. Maignen Antiseptic Powder according to the government chemists is composed essentially of calcium carbonate, borax, aluminum sulphate and sodium carbonate. Among other things the exploiters of this powder, which at one time was advertised to the medical profession, tried to persuade the public that the preparation would "sterilize" the stomach, throat, nose, lungs, etc. Green Mountain Oil or Magic Pain Destroyer was found to consist essentially of 95 per cent. linseed oil, with oil of sassafras, oil of thuja, and oil of turpentine, with possibly small amounts of camphor. According to the claims made on the trade package, this stuff was said to be "A Remedy for Diphtheria, Croup, Deafness and Sore Eyes, Rheumatic Pains, Stiff Joints, Pains in the Back" and many other ailments. Mrs. Joe Person's Remedy was found to be a slightly sweetened water-alcohol solution of vegetable drugs with a minute trace of alkaloids and the presence of podophyllin and sarsaparilla indicated. The preparation was claimed to cure such things as "blood poison," eczema, malaria and pellagra. Tutt's Pills were found to consist mainly of sugar, aloes, starch and calomel. The nostrum was sold under claims to the effect that it was "a remedy for intermittent and remittent fevers, dropsy, dysentery, diseases of the kidneys and bladder," and a number of other conditions (Jour. A. M. A., October 28, 1916, p. 1316-1317).

Editor State Journal,
Dear Sir:

Since the United States Government has discontinued intensive rat trapping the rats and mice are on the increase. In view of this fact we have added systematic rat trapping to our business. Our experts were in the employ of the United States Government in San Francisco, engaged in the successful rat destruction campaign headed by Dr. Rupert Blue.

No doubt some of the members of your Society are troubled with rats and mice and want them destroyed but do not know that there is a reliable firm doing such work.

Would you please bring this matter to the attention of your members. You are perfectly safe in recommending or endorsing our methods as they are the same as those used by the United States Government. The writer held responsible executive positions with the United States Public Health Service and the California State Board of Health for a number of years and is thoroughly familiar with the work of rat extermination.

My fees for such work are small in order to get as many as possible interested in this proposition which is of great value to the community.

Assuring you that your assistance will be highly appreciated, I remain,

Very truly yours,
JOHN F. LEINEN,
President and General Manager.

LEAD IN "AKOZ."

Akoz is a mineral product sold by the Natura Company of San Francisco, California, and said to possess most remarkable medicinal properties.

A circular issued by the Natura Company begins thus:

"While scientists have been striving through the centuries to compound remedies for man's various ills, Nature, greatest chemist of them all, has been working wonders in her crucibles and has achieved results far beyond man's greatest expectation.

"Nature's chief handicap has been the difficulty of placing her gifts in the hands of those whom she would benefit. By accident or fate, as you will, one of Nature's greatest medicinal products has just been discovered. It is the mineral given the name of Akoz by John D. Mackenzie, president and manager of the Natura Company of San Francisco, which is now giving this rare remedy of Nature to the public."

The circular then describes how its power to cure rheumatism is claimed to have been discovered and then asserts that:

"Akoz was subjected to every known scientific test before being presented to the public. It was practically determined that the ore contained a new element having radium-like qualities but containing nothing poisonous or harmful.

"After the curative virtues of Akoz for rheumatism, stomach touble, eczema, catarrh, piles, ulcers and numerous other ailments had been fully established in chemical laboratory, hospital clinic, and the private practice of physicians in various parts of the world, Mr. Mackenzie effected the organization of the Natura Company."

This product put up in the form of "Akoz medicinal mineral water, Akoz ointment, Akoz powder and Akoz suppositories" was submitted to the Council on Pharmacy and Chemistry for consideration some years ago with the claims that "Akoz" itself consists essentially of zinc sulphide, barium sulphate and aluminum oxide. The submitted analysis did not declare the presence of uranium though "special tests" for it had been "run," nor the presence of lead. Without checking the claimed composition, the Council at that time refused recognition to Akoz because there was no evidence submitted for the very extravagant and altogether improbable therapeutic claims.

After the Council had concluded the consideration of Akoz a letter was received from a California physician stating that according to an analysis submitted to him Akoz contained 0.34 per cent. of lead in the form of lead sulphate. The correspondent held that, while the lead sulphate did not pass into solution, persons drinking the supernatant liquid from Akoz (the "medicinal mineral water" is made by adding Akoz to ordinary water) would inadvertently swallow some of the powder, and that in this way Akoz had been the cause of lead poisoning.

Inasmuch as it has been demonstrated by Carlson and Woelfel (A. J. Carlson and A. Woelfel, Hygiene of the Painter's Trade by Alice Hamilton, Bull. of U. S. Bureau of Labor Statistics No. 120, May 13, 1913), that even small quantities of lead sulphate, when taken into the system for a long time have produced lead poisoning, the laboratory deemed it important that the product be examined for lead.

A specimen of "Akoz Powder" submitted to the Council by the Natura Company and contained in a sifter-top can was taken for analysis. The contents of the can were thoroughly mixed. To determine the presence of lead some of the powder was extracted with ammonium acetate solution.

Qualitative tests showed the presence of lead and sulphate in the ammonium acetate solution.

The presence of lead was demonstrated by the black percipitate with hydrogen sulphide, the yellow precipitate with potassium chromate and the typical yellowish crystalling precipitate with potassium iodide.

The presence of sulphates in the ammonium acetate solution was shown by the formation of a precipitate with barium chloride solution and acetic acid.

Two 2 Gm. samples were taken for the quantitative determination of lead. Each was treated repeatedly with a saturated solution of ammonium acetate until the filtered ammonium acetate solution gave no appreciable precipitate with potassium chromate solution. The ammonium acetate extractions from each specimen were combined and treated with hydrogen sulphide, the precipitated lead sulphide filtered off and washed, and ignited with sulphuric acid at a low heat. The crucible with the residue of lead sulphate was cooled and weighed.

(A) yielded 0.0469 Gm. or 2.34 per cent. lead sulphate.
(B) yielded 0.0440 Gm. or 2.20 per cent. lead sulphate.

While the laboratory has no evidence to show that the amount of lead sulphate thus found to be present is likely to prove harmful, the following cautionary letter was sent to the Natura Company:

"According to information which you sent to the Council on Pharmacy and Chemistry your product 'Akoz' does not contain lead. In view of reports received ascribing symptoms, resulting from the internal use of Akoz, to chronic lead poisoning, an examination of a specimen of Akoz Powder, which you sent to the Council, was made. This examination indicates the presence in Akoz powder of about 2.2 per cent. lead sulphate. In view of the disastrous results likely to follow the internal use of products containing even small amounts of lead, the above is submitted to you for your consideration."

No reply was received to the above from the Natura Company.

NAVY SURGEONS.

I am forwarding herewith for your information circulars describing the Medical Corps of the United States Navy.

Legislation has recently been enacted which will provide for approximately 300 additional medical officers in the Medical Corps of the United States Navy.

The pay ranges from $2,000 per year, with quarters or an allowance therefore, for assistant surgeons with the rank of Lieutenant, Junior Grade, to $8,000 with allowances upon attaining the grade of Medical Director with the rank of Rear Admiral of the upper half.

Applicants must be between the ages of 21 and 32 years, citizens of the United States, and must submit satisfactory evidence of preliminary and medical education. The examination for appointment in the Medical Corps consists of two stages, the first stage, securing appointment in the Medical Reserve Corps, and the second stage, securing an appointment as a commissioned officer in the regular Medical Corps.

After the candidate passes the preliminary examination he attends a course of instruction at the Naval Medical School. During this course he receives full pay and allowances of his rank, and at the end of the course he takes a final examination. Two of these courses begin each year, one commencing about the first of October, and the second course beginning early in February.

The examinations are held in several of the coast cities in the United States, both on the east coast and the west coast, and also at Chicago, Ill.

Literature describing the Navy as a special field for medical work, and circulars of information for persons desiring to enter the Medical Corps, may be obtained by addressing the Surgeon General, U. S. Navy, Navy Department, Washington, D. C.

The foregoing information is furnished as it is believed it is of interest to you, and that you will want to give it some notice in your journal.

Very truly yours,

W. C. BRAISTED,
Surgeon General, U. S. Navy.

ABSTRACT—SANITARY UNITS IN THE FIELD AND LINES OF MEDICAL AID.

(By Captain Leo C. Mudd, Medical Corps, U. S. Army.

In the Zone of the Advance, that is, within or immediately adjacent to the field of fighting, there is found, typically, the following:

I The Regimental Aid Station.
II Dressing Stations.
III Sanitary Trains, consisting of Ambulance Companies and Field Hospitals; the latter either set up or in wagons.
IV Stations for the slightly wounded.

Connecting these formations with the larger units of the service of the interior, there is formed a line of communication.

On the line of communication there are found, typically, three groups of formations, viz.: The Base Group, the Intermediate Group, and the Advance Group. The composition of these is as follows:

BASE GROUP: A medical supply depot, one or more base hospitals, and, when required, convalescent camps, contagious disease hospitals, hospital trains and trains for patiens, hospital ships and ships for patients, casual camps, sanitary squads, field laboratories, and organizations of the American Red Cross.

INTERMEDIATE GROUP: Rest stations, organizations of the American National Red Cross, and such other sanitary formations as may be necessary.

ADVANCE GROUP: Two evacuation hospitals and one evacuation ambulance company for each division at the front supplied from the advance section, and an advance medical supply depot. The evacuation hospitals and evacuation ambulance companies of the advance section are collectively known as the sanitary column.

The Regimental Aid Station.

This station, established by each regiment or independent battalion during combat and when justified by the number of wounded, is the place to which all wounded of the organization are carried by its sanitary personnel, and where emergency treatment is administered. The position of the station is fixed by the organization commander and is as near the firing line as possible.

Dressing Stations.

These stations, established during combat, by ambulance companies of the sanitary train, in the immediate rear of the line of regimental aid stations, are places where all wounded, unable to walk, are collected from regimental aid stations by bearers of ambulance companies. From these stations the wounded are transported by ambulance companies back to field hospitals. The equipment of dressing stations is more elaborate than that of the regimental aid station. It provides light nourishment and stimulants for the wounded and affords facilities for more elaborate dressings and for emergency surgery.

Ambulance Companies.

Ambulance companies are Medical Department units, consisting, principally, of wheeled transportation—the mule-drawn conveyance giving way to the motor ambulances when road conditions permit. A typical ambulance company in our service consists of twelve (12) ambulances, three (3) wagons, eighteen (18) riding horses, sixty (60) draft mules—4 for each vehicle—and four (4) pack mules.

The function of the ambulance company is to push up close to the rear of the fighting troops, as near to the line of regimental aid stations as possible, and establish dressing stations. They are charged with the tranportation of the wounded back to field hospitals, giving them such temporary care and treatment as is possible while en route.

Field Hospitals.

The function of the field hospital is to keep in touch with the combatant organizations, and to provide shelter and such care and treatment as are practicable for the sick and wounded of the division, who are brought in by the ambulance companies, until the sanitary service of the line of communication takes charge of them. A field hospital can meet these requirements only when it is relieved so promptly by the sanitary units in the rear that its mobility is not interfered with.

It is apparent, therefore, that Field Hospitals do not perform the functions of civil hospitals. Their equipment is limited to the things necessary to provide shelter and nourishment, and emergency treatment for patients, until they can be transferred to the immobile units at the rear.

In a field hospital, no beds or cots are provided; the patients are placed on straw over which blankets are spread, and transported to the evacuation hospital at the head of the line of communications as soon as practicable.

Station for Slightly Wounded.

The station for slightly wounded is a transient divisional organization on the battlefield. It has no permanent personnel or definitely prescribed equipment. Usually one medical officer, two noncommissioned officers and eight privates are detached from such unit of the sanitary train from which they can be best spared, and placed in charge of this station.

The Base Hospital.

Base hospitals are Medical Department units of the line of communications under the supervision

of the surgeon, base group. They occupy buildings, if suitable ones are available.

The Convalescent Camp.

In appropriate cases convalescent camps may be established in the vicinity of base hospitals. Such camps will be branches of the base hospital near which they are situated.

The Contagious Disease Hospital.

In the presence of a serious epidemic, special facilities for the isolation of cases may be required. In this event, the surgeon, base group, with the authority of the commander of the line of communications, organizes such contagious disease hospitals as may be necessary to meet the emergency.

Field Laboratories.

One or more field laboratories are established on the line of communications, where most convenient for the work to be accomplished. A suitable building is chosen in each case, preferably in a town provided with water and gas supply.

Trains, Boats and Ships.

Under the direction and control of the surgeon of the base, specially fitted trains for patients, hospital boats and ships, are organized and equipped to facilitate the rapid and comfortable transportation of the wounded to the interior.

Supply Depots.

On the line of communications, a base and an advance medical supply depot are formed.

The base depots keep on hand a sufficient quantity of surgical and medical material to insure the prompt filling of requisitions made by the medical department units in the combatant area ahead.

Evacuation Hospitals.

The primary function of the evacuation hospital is to replace field hospitals so that the latter may move with their divisions, or to take over their patients with the same object in view. So far as it would not interfere with this function, the evacuation hospital may be used for ordinary hospital purposes on the line of communications.

Evacuation Ambulance Companies.

In time of war, in addition to the ambulance companies organized to carry the wounded from the dressing stations to field hospitals, evacuating ambulance companies are formed to transport the sick and wounded from field hospitals to evacuation, base or other hospitals on the line of communications, or to points with train or boat connections for rail or water transportation.

The line of communications, with its numerous sanitary formations—the hospital trains and ships, isolation and evacuation hospitals, field laboratories, and base hospitals—will call for the activities of many reserve medical officers, offering, at the same time, a varied and extremely interesting experience.

L. C. MUDD.

(Abstract.)

THE MEDICAL SERVICE OF A BASE HOSPITAL.

(By Captain Morrison C. Stayer, Medical Corps, U. S. Army.)

The base hospital is a medical department unit of the line of communications, generally placed in the base section of the zone of line of communications, under the supervision of the surgeon, base group, and consists of 500 beds, is immobile, should be in building if available, and are numbered from 1 up for the whole military establishment as, "Base Hospital No. 1, first Field Army." As many as needed are established, depending on the amount of troops to serve and the number of casualties to be expected. The Red Cross base hospitals, now being formed, will be assigned to different places in this zone as they are needed.

The administration is carried on by a personnel of twenty medical officers, one dental surgeon, 153 enlisted men, and 46 female nurses; if the latter are not available, enlisted men will be assigned their places. It is believed the commanding officer, adjutant and quartermaster should be of the regular corps. On account of their training, they can handle the different problems to a better advantage than the new man coming in, leaving the professional work to be accomplished in part at least, by civilian doctors assigned to this unit.

The functions of this unit are to receive all sick and wounded from the front by way of the evacuation hospitals and ambulance companies, and any who may be incapacitated along the line of communications. In this hospital, they receive definitive treatment, hence these units are equipped with all the material that is needed in any city hospital. Here it is decided who shall be sent back to the front, and who sent to the rear for further treatment or discharge for disability. The commanding officer must himself select the patients to be sent to the rear, in order that as many as will be fit can be sent back to the army in the zone of advance, thus saving as many rifles as possible to the army in the field. Those sent to the zone of the interior, are practically lost to the mobile army, at least for a considerable time. The base hospital also has a convalescent camp for recuperation, and a contagious disease hospital in conjunction with it, under the supervision of the commanding officer of the base hospital.

It is to these hospitals, many civilian doctors will be assigned in time of war, hence we all should become as familiar as possible with them in time of peace in order to enhance our working value in time of war.

(Abstract.)

FIELD RECORDS OF THE ARMY MEDICAL DEPARTMENT.

(By Major Lloyd L. Smith, Medical Corps, U. S. Army.)

The reports and returns prescribed by regulations, all serve a useful purpose in facilitating the proper distribution and maintenance of the forces at front and rear, in preserving their mobility, in providing them with the necessary funds, supplies and equipment, in securing a proper account and record of the various measures taken regarding them, and, generally, in promoting the efficiency of military action. If the required papers are not promptly and correctly prepared, valuable experience, which might be utilized for improvement in methods, will be lost; co-ordination, of paramount importance in campaign, will fail; the interests, not only of the Government, but of the individual soldier as well, will be sacrificed; the hospital corps and medical department units will be improperly and insufficiently supplied; the dead will be unaccounted for; and the sick and wounded, under treatment, will suffer needless misery and privation. Medical officers must, accordingly, use every endeavor, under all conditons of service, to insure the prompt and correct execution of the prescribed reports and returns.

Correspondence, reports and returns, which, in times of peace would be forwarded to or through the department surgeon, will, in the theater of operations, be forwarded to the division surgeon—if from organizations or persons serving with mobilized divisions—and to the surgeon, base group, if from organizations or persons on duty with the line of communications.

The following special reports and forms are required only during campaign:

(a) Daily field report of sanitary personnel and transportation. This report will be made daily to the proper superior by the senior medical officer in the field, a copy being retained. Tele-

graphic report of the data called for therein, may be required if necessary. This report contains a list of the sanitary personnel—medical officers, enlisted men, and other personnel with a numerical statement of the number present for duty, and the number sick, or in arrest or confinement; also, those absent with leave, without leave, or those sick or on detached service. Under transportation, the number of animals (riding, driving and pack) are given. Under vehicles, a statement is made of the number of wagons, ambulances, travois and litters. The condition, as to serviceability, of the animals and vehicles is also stated.

(b) Daily field report of patients: This report will, likewise be rendered daily, as in the preceding case. This report gives, in number, the remaining sick since last report, those admitted from command, and those otherwise admitted; there is also a statement of the number returned to duty, transferred, died, otherwise disposed of, and those remaining under treatment. Also the number of vacant beds is given. Among the cases remaining under treatment, the number suffering from the most important diseases is given; also the number of patients suffering from wounds received in action; also the number suffering from other wounds and injuries.

(c) Monthly reports from divisional sanitary inspectors required.

(d) Report of the sanitary inspections of the medical department organizations required. In this report there is embodied statements concerning the following:

(1) Administration of the command or organization.
(2) Efficiency, instruction and adequacy of the medical personnel.
(3) Condition of the hospital (or other medical department organization).
(4) Character and sufficiency of the medical supplies.
(5) Facilities for transporting the medical supplies and the sick and wounded.
(6) Occurrence of preventable diseases and sufficiency of the measures taken for their prevention.
(7) Other matters affecting the care, well being, and comfort of the sick and wounded.

(e) Certificate of identity: These certificates are issued to those who are entitled to wear a brassard, but who do not wear a uniform. This certificate contains a personal description of the individual; it is kept in a small tin box, which may be worn suspended around the neck.

(f) Diagnosis tags: On the battlefield, diagnosis tags are applied to all sick, wounded and dead; and are used in recording and reporting casualties. The diagnosis tag contains the following information: Transportation required; whether the patient is able to endure transportation; whether he is able to walk; and, also the diagnosis and the treatment accorded him. The urgency tag is to be used in addition to the usual diagnosis tag, as a conspicuous mark to call attention to some case requiring immediate assistance. The date is important and should never be omitted. When narcotics or stimulants are administered, the quantity given, and the time, should always be stated. If practicable, the name, rank, company, and regiment of the sick or wounded man, should be entered upon the diagnosis tag.

(g) List of sick and wounded: In this list are recorded the name, rank and organization of the dead or the wounded; the nature of the casualty is given, together with the diagnosis of the disease or injury. If wounded, the missile or weapon must be given, together with the place of injury and the treatment accorded; the date of entry, and dispositon of case, with date of same, is also recorded. There is, in addition, a numerical summary of all cases admitted to sick report.

(h) Return of casualties: This report is made after every action in which casualties have occurred, by the commanding officer of each independent organization. Casualties pertaining to the personnel of the organization making the report only should be included. Regimental surgeons furnished regimental commanders with information necessary for the preparation of the report. This return contains the name, rank and organization of the dead and wounded; also, the nature of the casualty, the character of the wound or other injury, nature of missile or weapon, and the place and date of the action or engagement.

(i) In the case of medical department units, which have quartermaster accountability, such additional records, reports, returns, etc., as are required by the quartermaster corps, must be kept and made.

IN ERRATA.

In list of New Members, November Journal, 1916, the name of Ethel M. Walters should have been Watters, Ethel M.

Dr. Robert Bremner Smith is not dead as reported in the November 1916 Journal .

We have just been advised that Alonzo C. Cook, reported dead in our December Journal, 1914, is not dead, but is living and address is Long Beach, Calif.

RESIGNED.

Wintermute, G. P. San Francisco.

NEW MEMBERS.

Coleman, Earl H., Yosemite Valley.
Adams, Bonnie O., Riverside.
Cowan, Angus B., Fresno.
Burch, E. Lee, Watsonville.
Thompson, Georgia E., Fresno.
Dolley, Frank S., South San Francisco.
Purnell, W. W., Oakland.
Legault, J. W., Oakland.
Mitchell, W. E., Berkeley.
Peters, Lulu H., Los Angeles.
Allen, Albert, Los Angeles.
Kearney, Elizabeth, Los Angeles.
Brandel, Harry M., Los Angeles.
Gray, Etta, Los Angeles.
Nutting, Floyd, Santa Monica.
Skinner, Cynthia A., Los Angeles.
Stovall, Leonard, Los Angeles.
Carson, Emma M., Reno, Nevada.
Collins, W. F., Virginia.
Haygood, A. G., Downey.
Reum, C. G., Los Angeles.
Seaman, E. D., Los Angeles.
Swift, E. L. H., Los Angeles.
Conerty, J. M., Los Angeles.
Derrick, J. S., Los Angeles.
Hanlon, Edw. R., Los Angeles.
Martyn, Geo., Los Angeles.
Metcalf, C. F., So. Pasadena.
Dieterle, K., Los Angeles.
Wilson, H. P., Whittier.
Bancroft, I. R., Los Angeles.
Rolph, W. D., Riverside.
McPheeters, G. Carl H., Riverside.

DEATHS.

Gleaves, James S., Missouri.
Dransfeld, Chas. C., San Francisco.
Faris, Clifton M., Sacramento.
Irving, Walter William, Los Angeles.
Dukeman, Wm. H., Los Angeles.
Brown, Henrietta, San Francisco.
Todd, David B., San Francisco.

Index opposite page 484.

We indorse the policy which has made the CALIFORNIA STATE JOURNAL OF MEDICINE one of the cleanest medical publications in the United States.

We have contributed more than our full share toward the moral, intellectual and material development of this publication.

We pledge our continued support and all the resources at our command, *provided:* the Journal continues to reflect the courage, the independence and the progressive spirit of the GREAT WEST!

We hope and trust that those who may now guide the Journal's destiny will be alive to the arduous, pioneer effort which has brought the Journal to its high state of efficiency.

Through the zeal of its now departed Secretary, the Medical Society of the State of California created the State Journal. The Journal now maintains the State Society.

Let the Journal continue to stand for all that is best in Medical Journalism and Medical Ethics. There can be no room here for petty ambitions and petty jealousies!

Respectfully submitted this Thanksgiving Day, Nineteen Hundred Sixteen.

Fred I. Lackenbach

CALIFORNIA STATE JOURNAL OF MEDICINE

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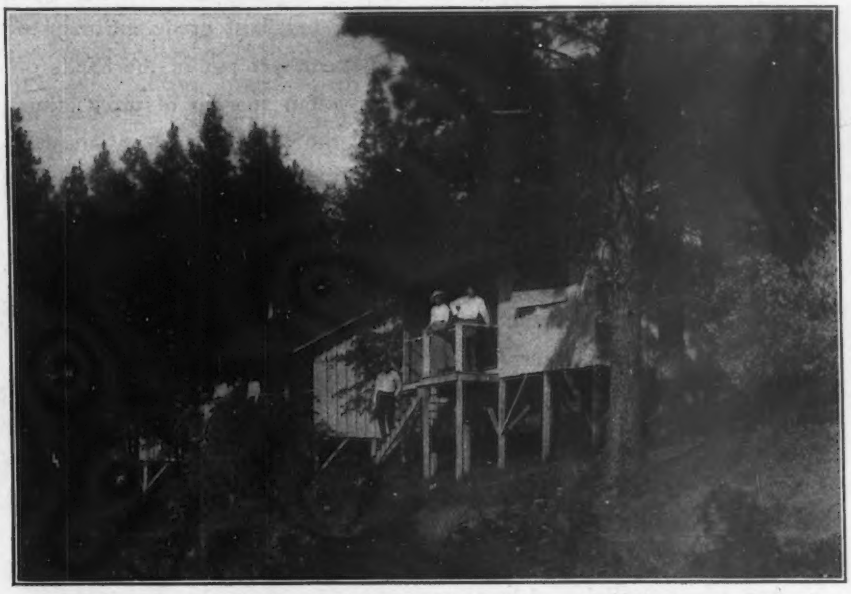

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